



# SEXUALLY TRANSMITTED DISEASES IN SAN DIEGO COUNTY 2017 DATA SLIDES

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*County of San Diego  
Health and Human Services Agency  
Division of Public Health Services  
HIV, STD, and Hepatitis Branch*



September 2018  
[www.STDSanDiego.org](http://www.STDSanDiego.org)



## Preface

This publication, *Sexually Transmitted Diseases in San Diego County, 2017 Data Slides*, includes reported disease data collected through 2017 for chlamydia, gonorrhea and syphilis. All tables and figures published here supersede those in prior publications.

This slide set provides a comprehensive picture of reported sexually transmitted disease (STD) trends and current morbidity in San Diego. These data are compiled to guide policy and program development within the County of San Diego HIV, STD and Hepatitis Branch, local STD programs, and other public health agencies.

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## Suggested Citation

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# Case Counts and Rates



- These slides include **case counts** and **rates** of reportable STDs.
- Rates take population size into account and indicate the impact of STDs on a group or population.
- In this report, rates are expressed as the number of cases per 100,000 persons in a group or population.
- Population estimate source: 2017 Preliminary Population Estimates; County of San Diego, Health and Human Services Agency, Public Health Services Division, Community Health Statistics Unit. 7/2018.
- The following is an example of the difference between cases and rates:

Region	Case Count	Population	Rate per 100,000 <i><math>\frac{\text{Case Count} * 100,000}{\text{Population}}</math></i>
A	10,000	200,000	5,000
B	10,000	100,000	10,000

Despite having the same number of affected individuals (10,000), the rate for Region B is higher than Region A because there are fewer inhabitants. Accounting for the population size allows for a more consistent comparison of the level of disease per person between regions.

# STD/HIV Screening Recommendations

## United States Preventive Services Task Force

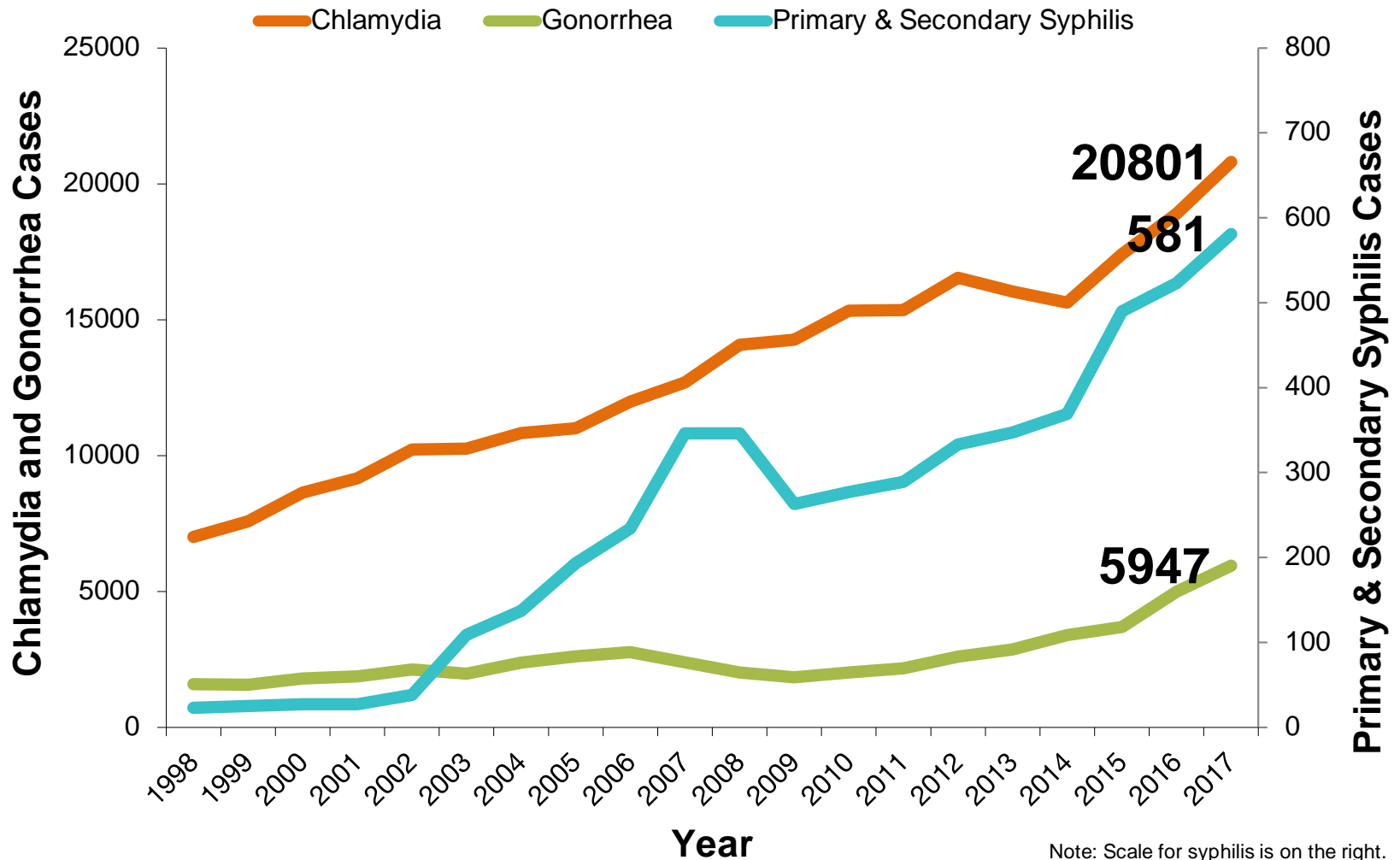
- Chlamydia and gonorrhea screening in sexually active females aged 24 years and younger (Grade B)
- Chlamydia and gonorrhea screening in sexually active females aged 25 years and older with risk factors (Grade B)
- Screening for syphilis in persons who are at increased risk for infection (Grade A)
- Early screening for syphilis in all pregnant women (Grade A)
- Screening for HIV infection of adolescents and adults aged 15 to 65 years, and younger adolescents and older adults at increased risk of infection (Grade A)
- Screening for HIV infection in all pregnant women (Grade A)

Source: <https://www.uspreventiveservicestaskforce.org>



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# STDs Reported Among San Diego County Residents, 1998 – 2017



# Chlamydia



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# Key Points

## Chlamydia in San Diego County

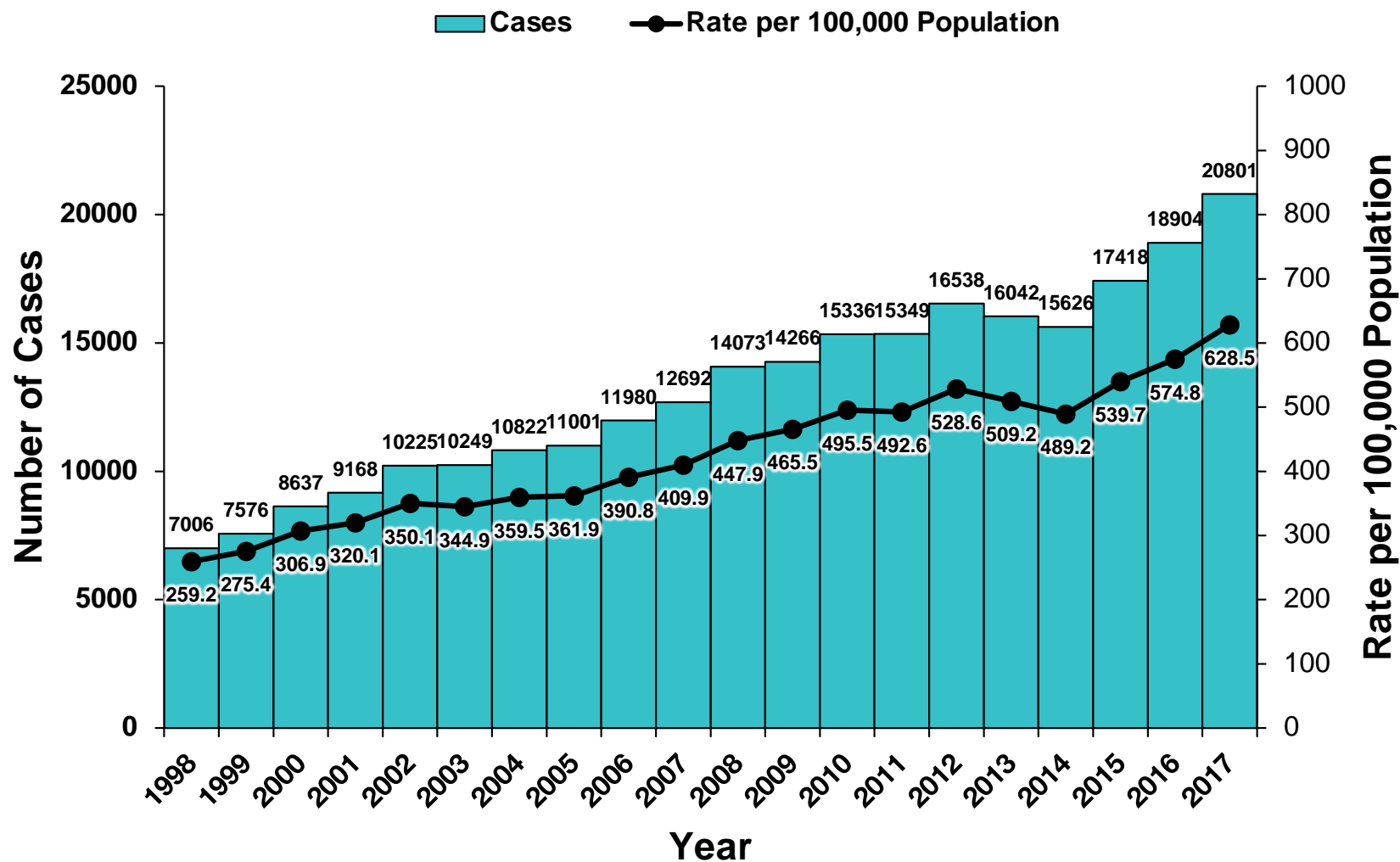
- Chlamydia is the most commonly reported disease in San Diego County and in California.
- Cases of chlamydia increased by 10% from 18,904 cases in 2016 to 20,801 cases in 2017.
- The overall rate of chlamydia increased by 9.3% from 574.8 cases per 100,000 in 2016 to 628.5 cases per 100,000 in 2017.
- The rate of chlamydia in women is 1.6 times the rate in men.
- Young women, aged 20 to 24 years, have the highest rate of infection.



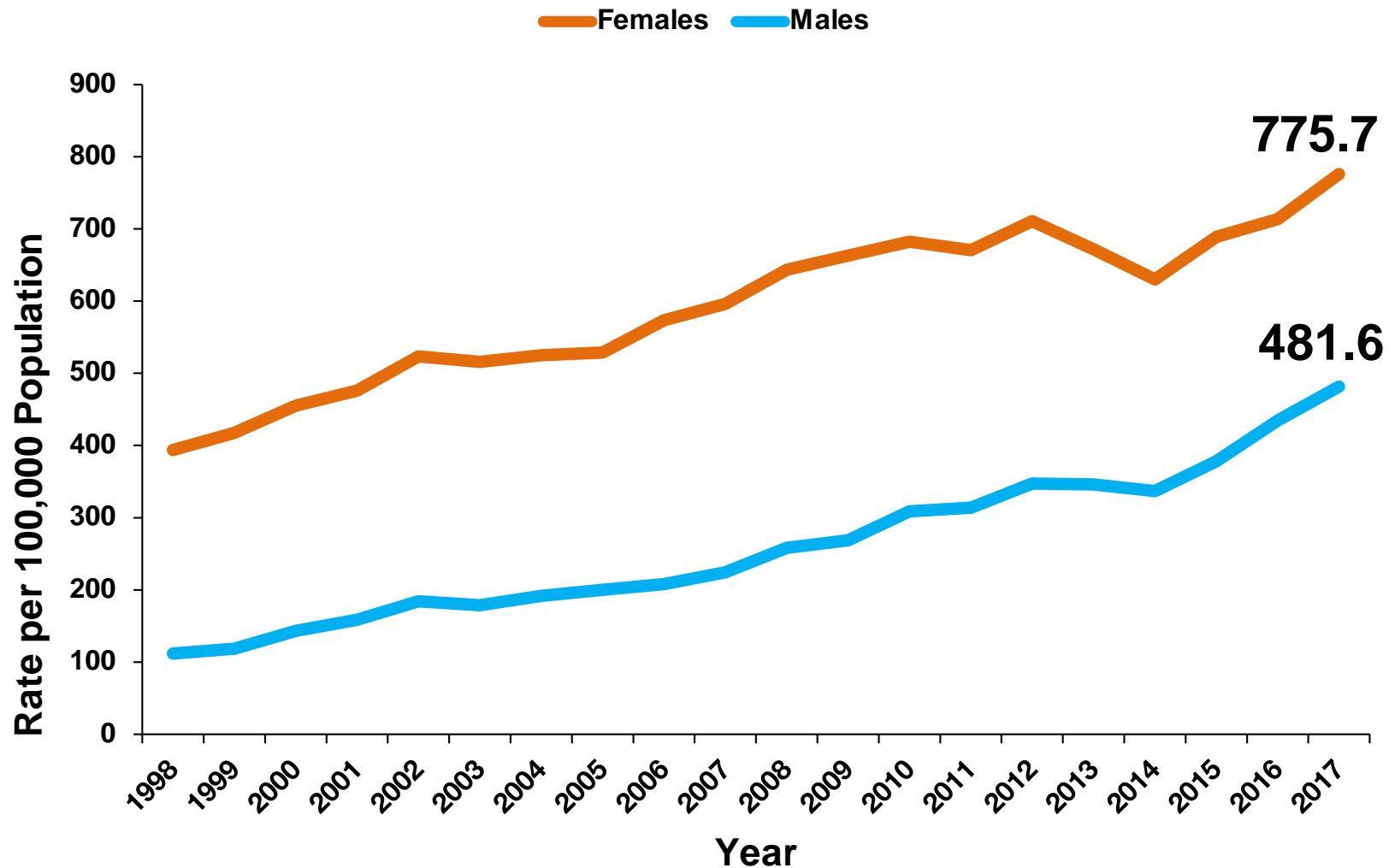
LIVE WELL  
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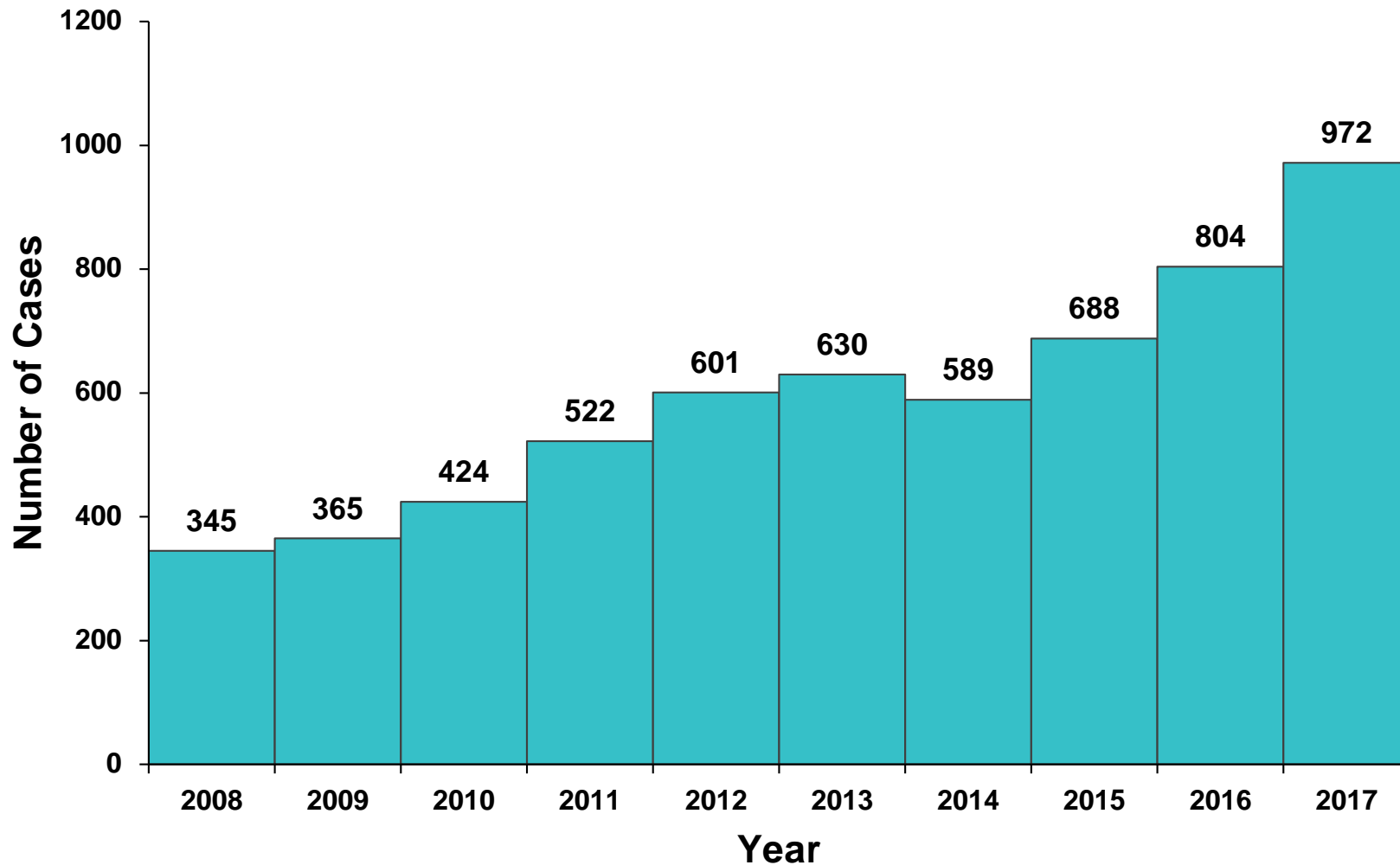
# Chlamydia Cases and Rates by Year San Diego County, 1998-2017



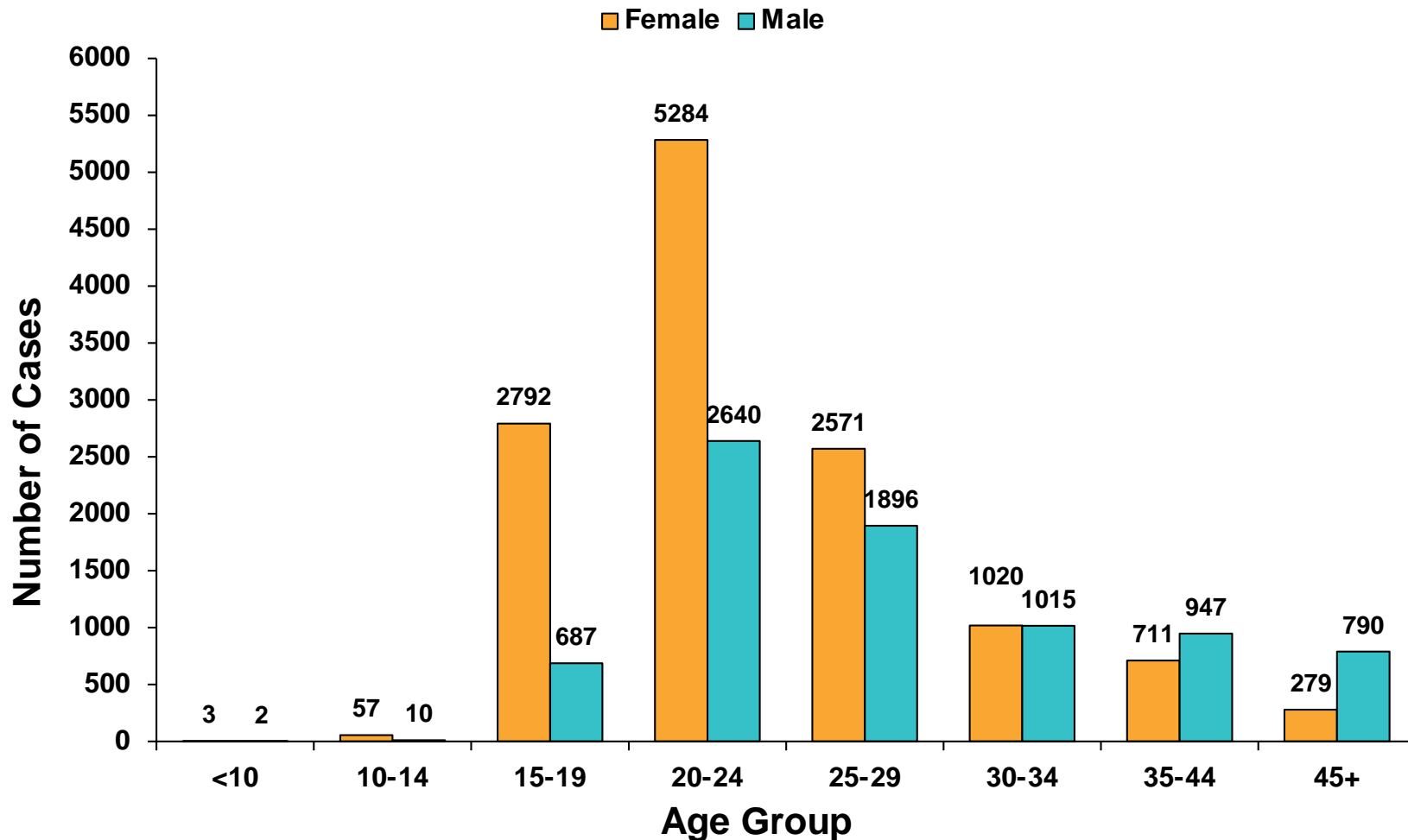
# Chlamydia Rates by Gender and Year San Diego County, 1998 - 2017



# Rectal or Pharyngeal Chlamydia Infections in Males San Diego County, 2008-2017

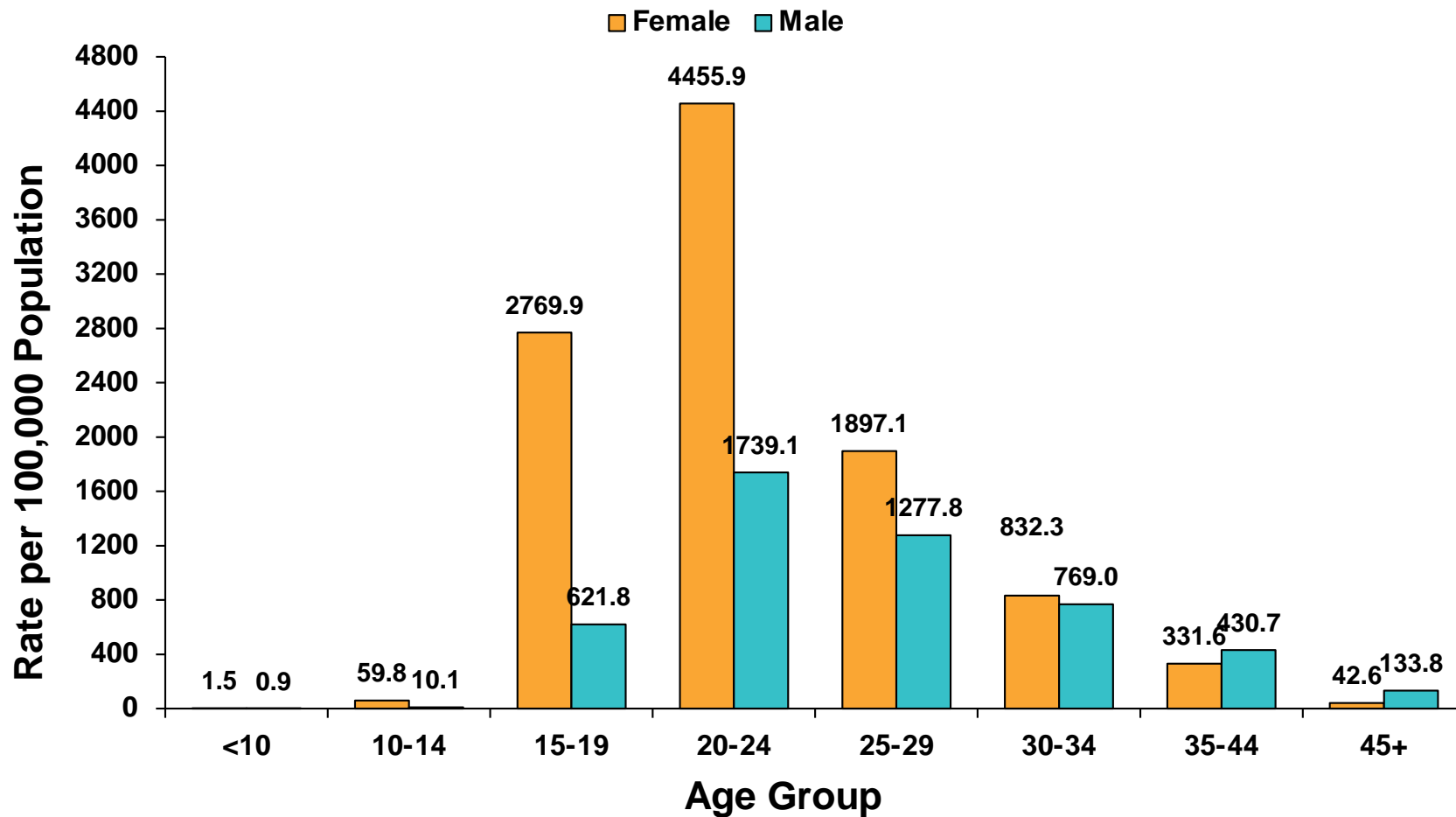


# Chlamydia Cases by Gender and Age San Diego County, 2017



Note: 22 cases were missing gender information and 73 were missing age information. 2 cases were missing both gender and age information.

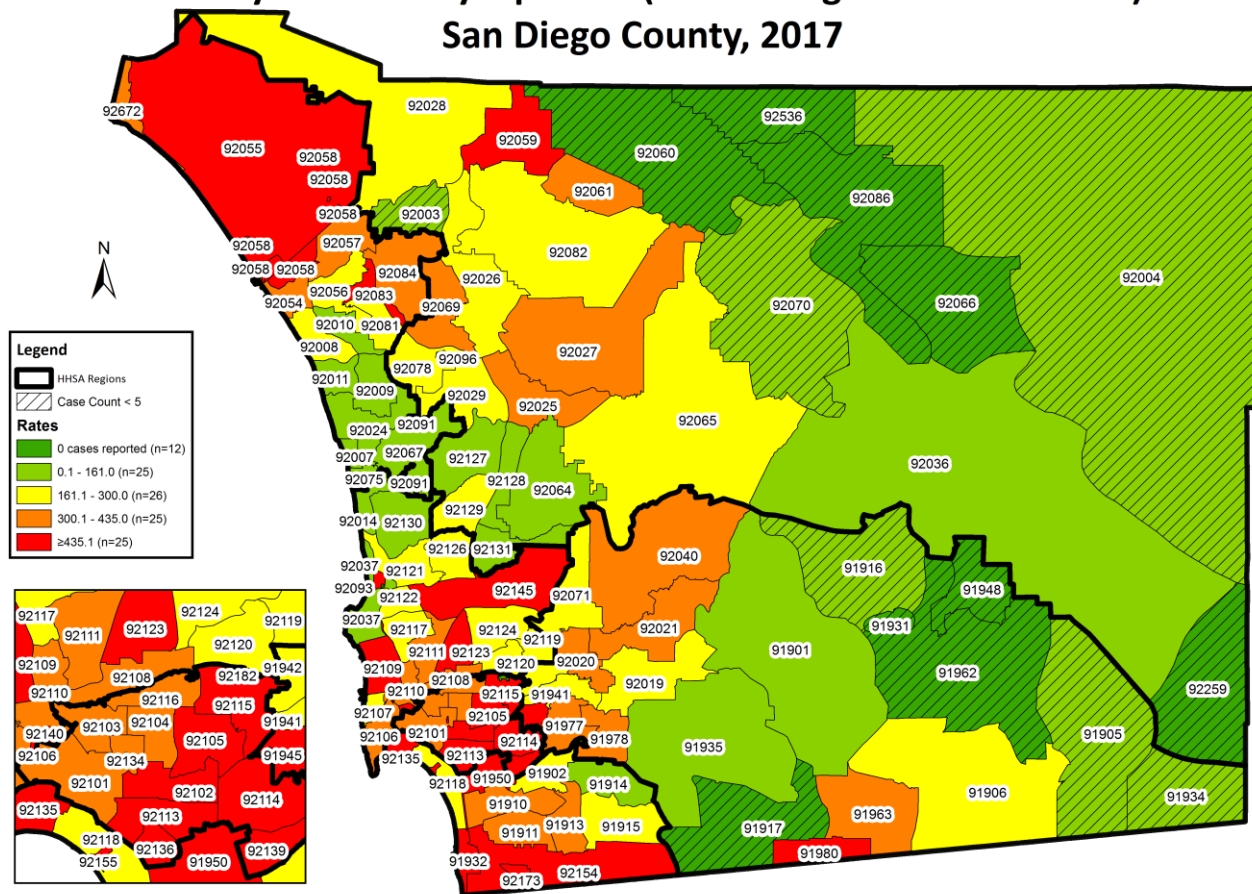
# Chlamydia Rates by Gender and Age San Diego County, 2017



Note: Rates exclude 97 cases missing gender or age information.  
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.



## Chlamydia Rates by Zip Code (Persons Aged 15 to 29 Years) San Diego County, 2017

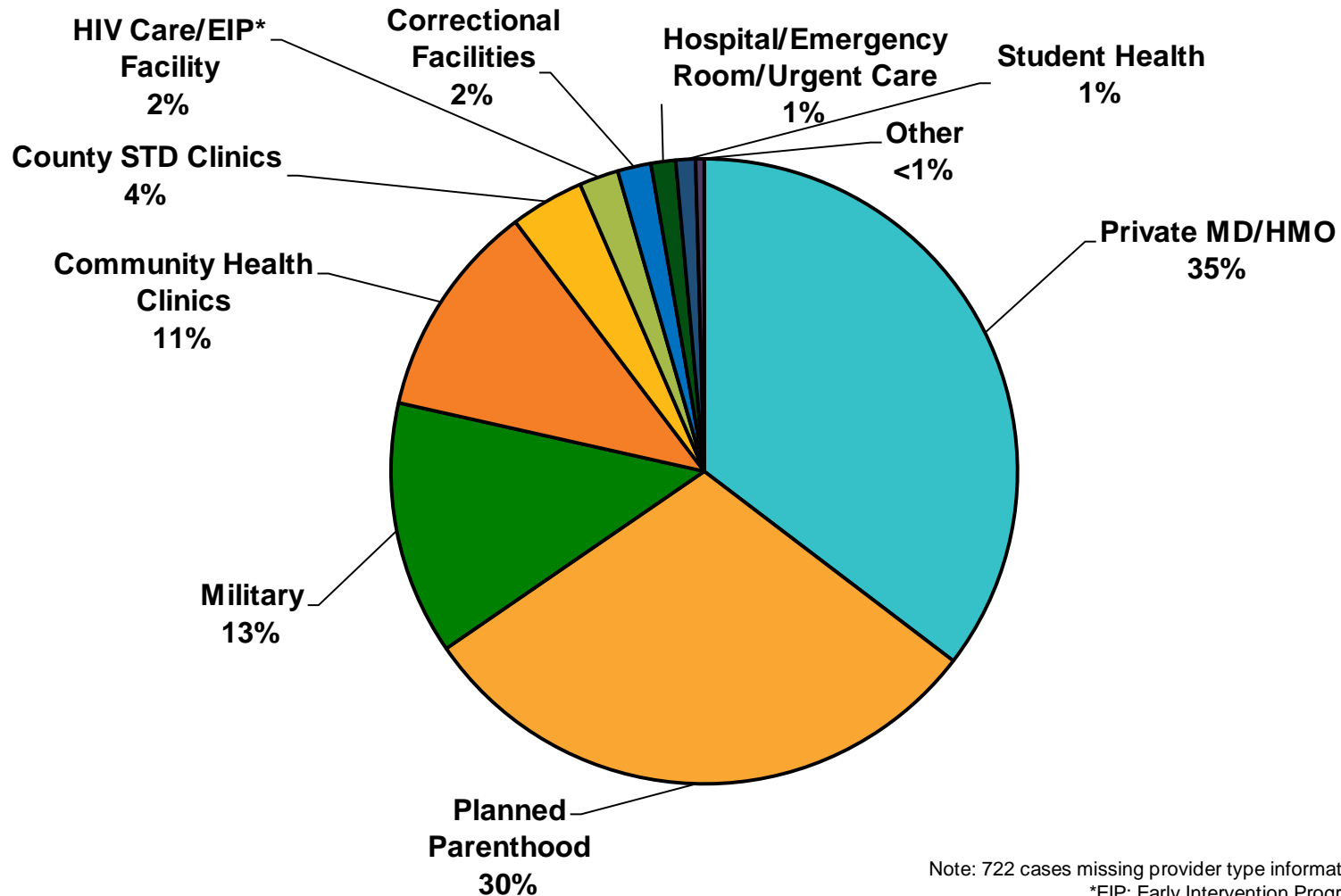


Source: County of San Diego, Health and Human Services Agency, HSHB (HIV, STD, Hepatitis Branch), CalREDIE Database

Map Date: August 23, 2018

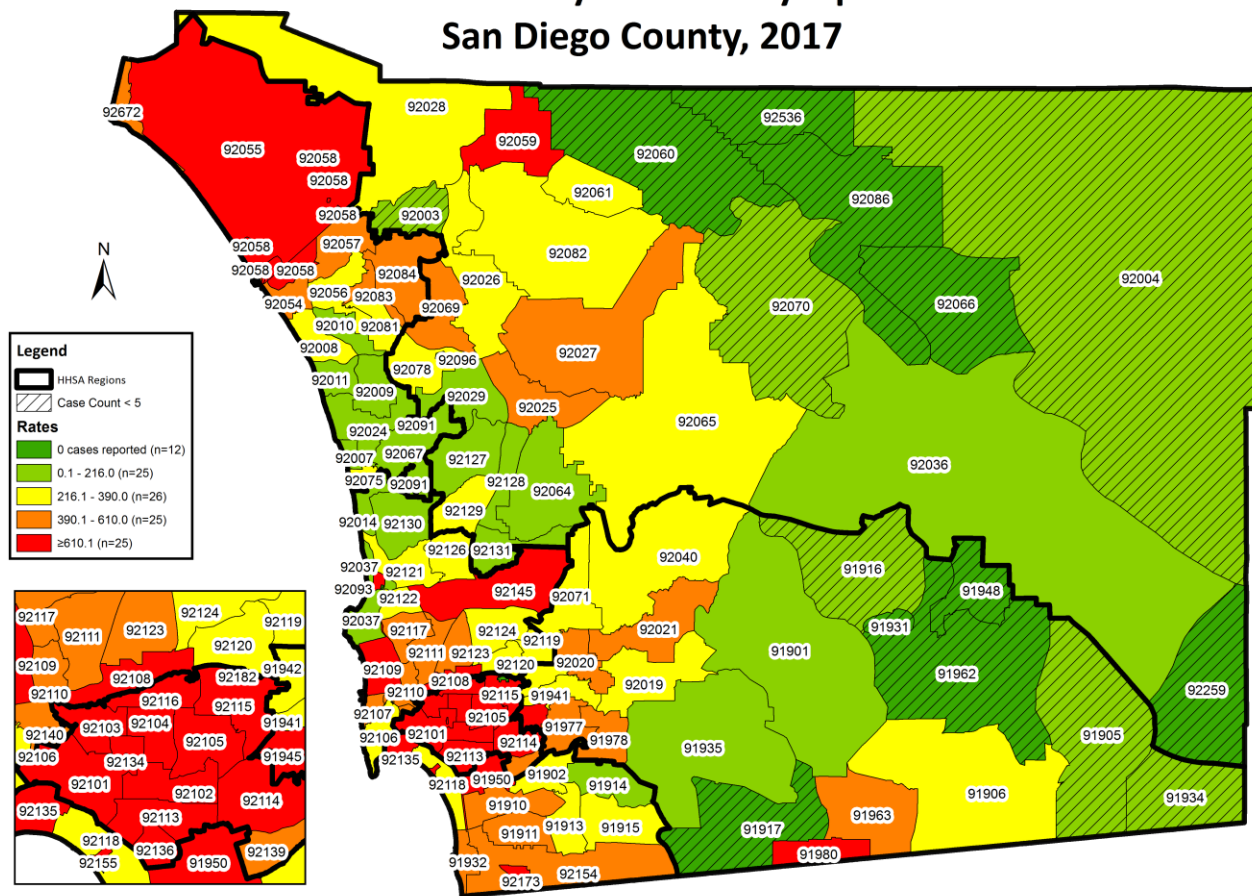
Contact: Lawrence Wang

# Chlamydia Cases by Reporting Facility Type San Diego County, 2017





## Overall Chlamydia Rates by Zip Code San Diego County, 2017





# Gonorrhea



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# Key Points

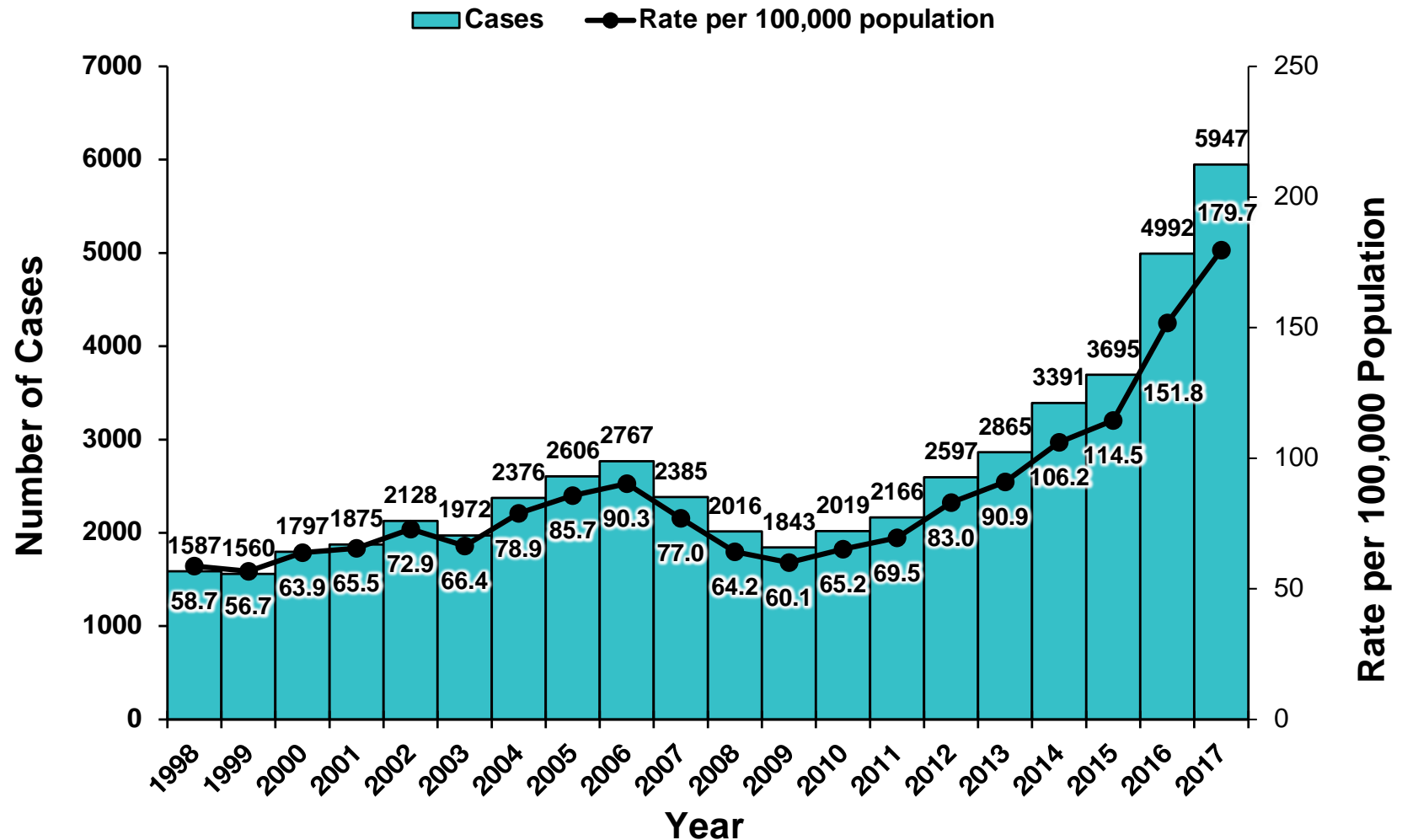
## Gonorrhea in San Diego County

- Cases of gonorrhea increased by 19.1% from 4,992 cases in 2016 to 5,947 cases in 2017.
- The overall rate of gonorrhea increased by 18.4% from 151.8 cases per 100,000 in 2016 to 179.7 cases per 100,000 in 2017.
- The rate of gonorrhea in males is almost three times the rate in females and increased by 57.6% from 2015 to 2017.
- Men aged 20 to 29 years have the highest rates of infection.
- The rate of gonorrhea in African-American/black males is 3.8 times that of white males and 2.8 times that of Hispanic males; the rate of infection in African-American/black females is 5.1 times that of white females and 3.1 times that of Hispanic females.

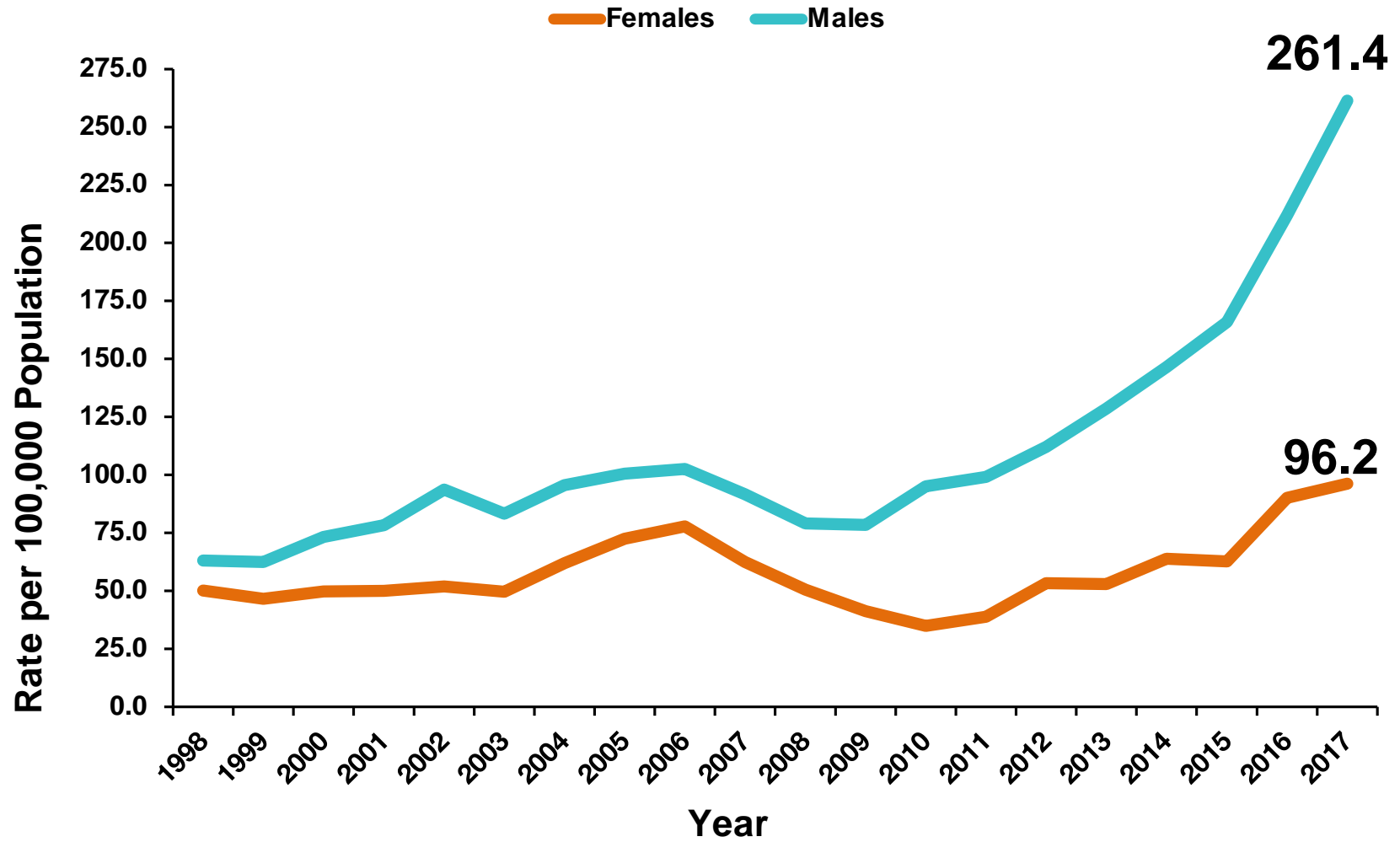


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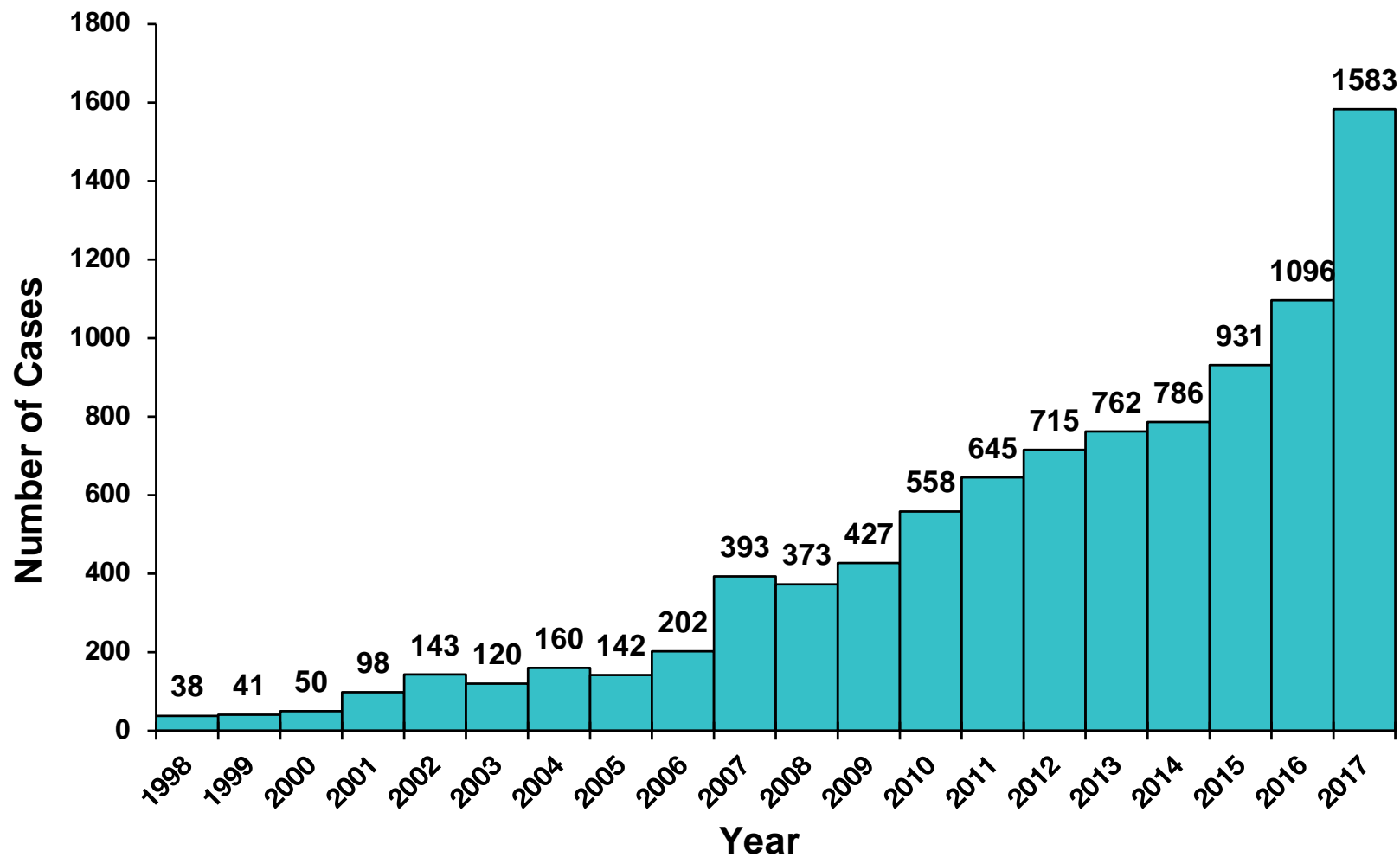
# Gonorrhea Cases and Rates by Year San Diego County, 1998-2017



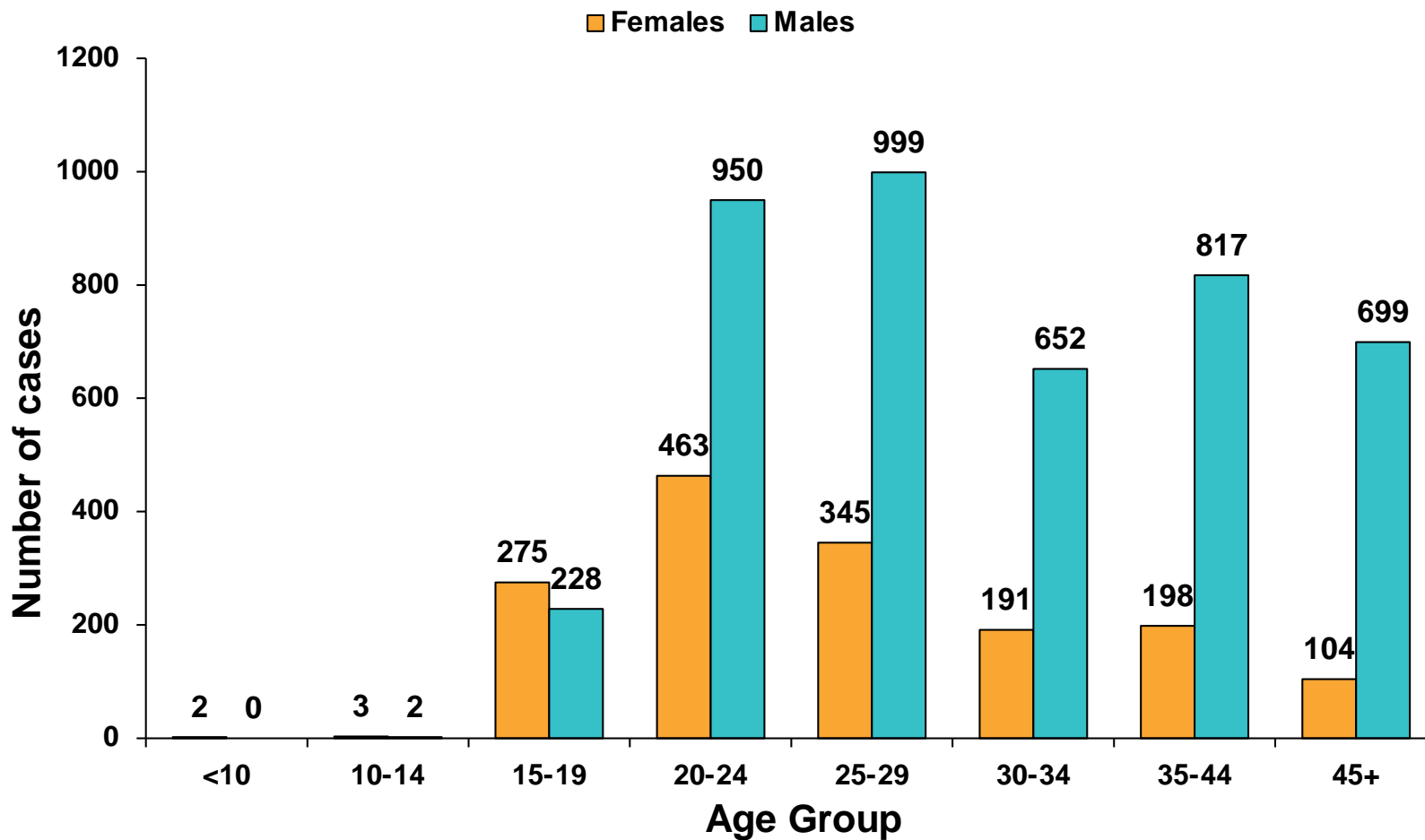
# Gonorrhea Rates by Gender and Year San Diego County, 1998 - 2017



# Rectal or Pharyngeal Gonorrhea Infections in Males San Diego County, 1998-2017

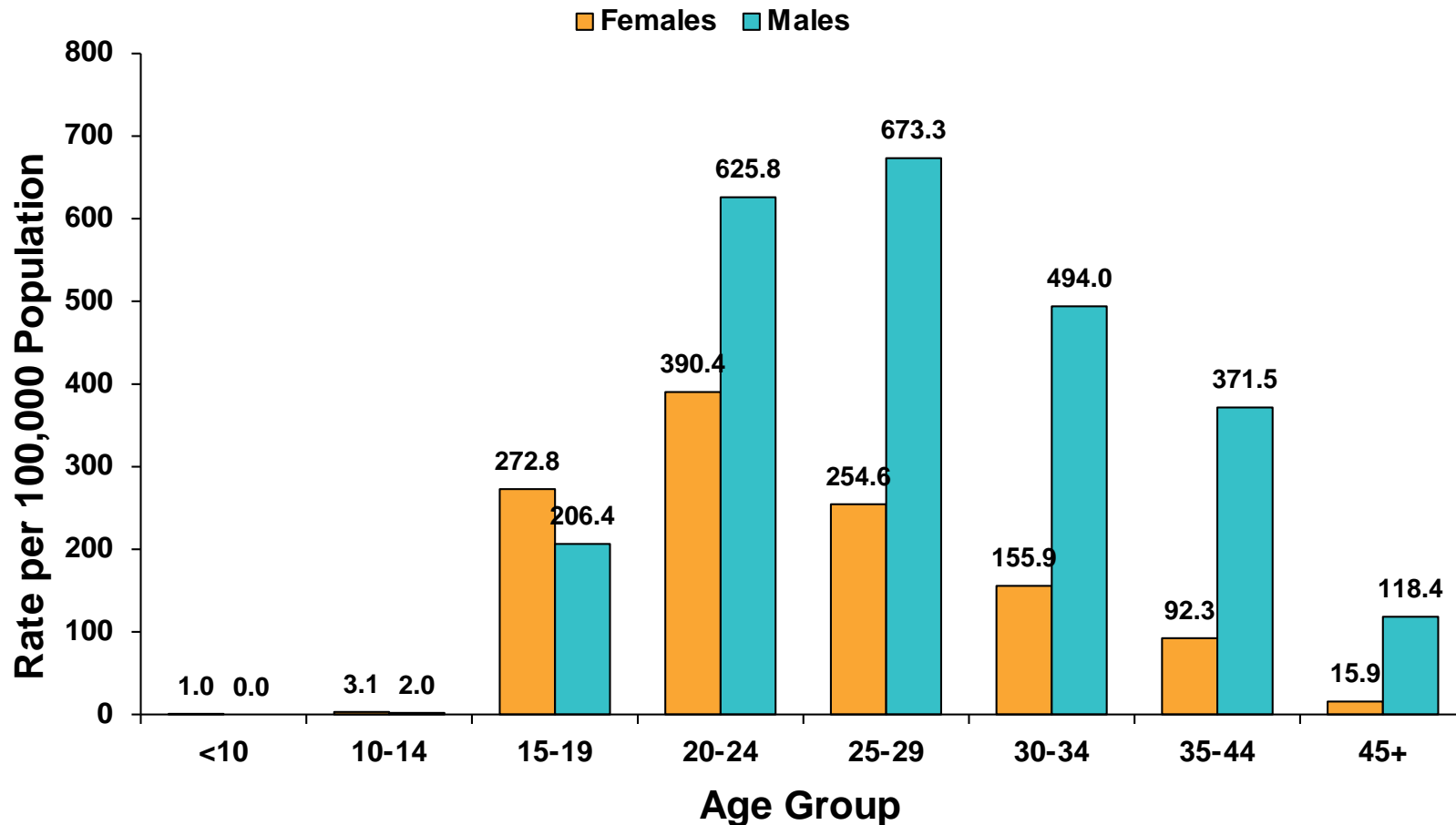


# Gonorrhea Cases by Gender and Age San Diego County, 2017



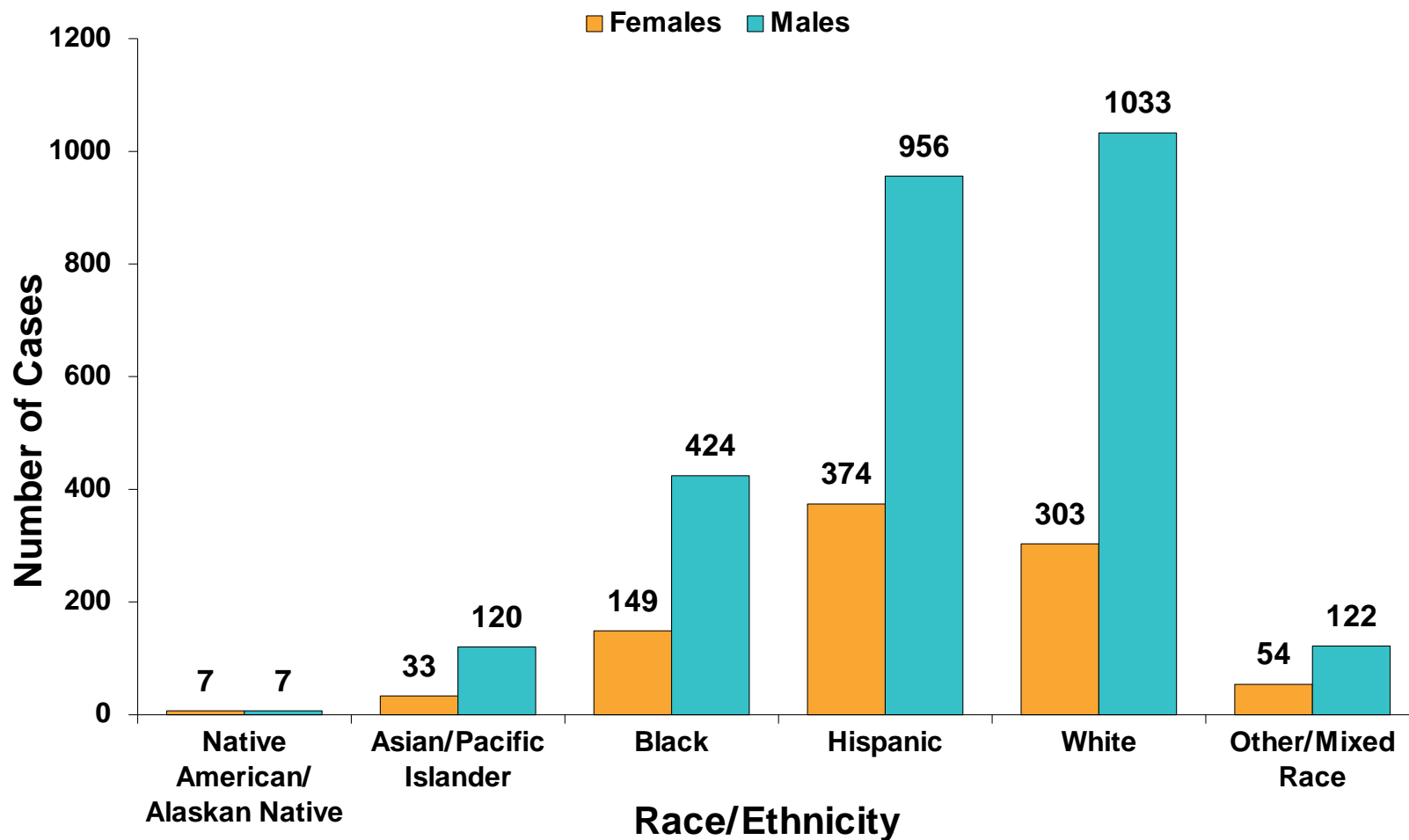
Note: 15 cases were missing gender information and 4 were missing age information.

# Gonorrhea Rates by Gender and Age San Diego County, 2017



Note: Rates exclude 19 cases missing gender or age information.  
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

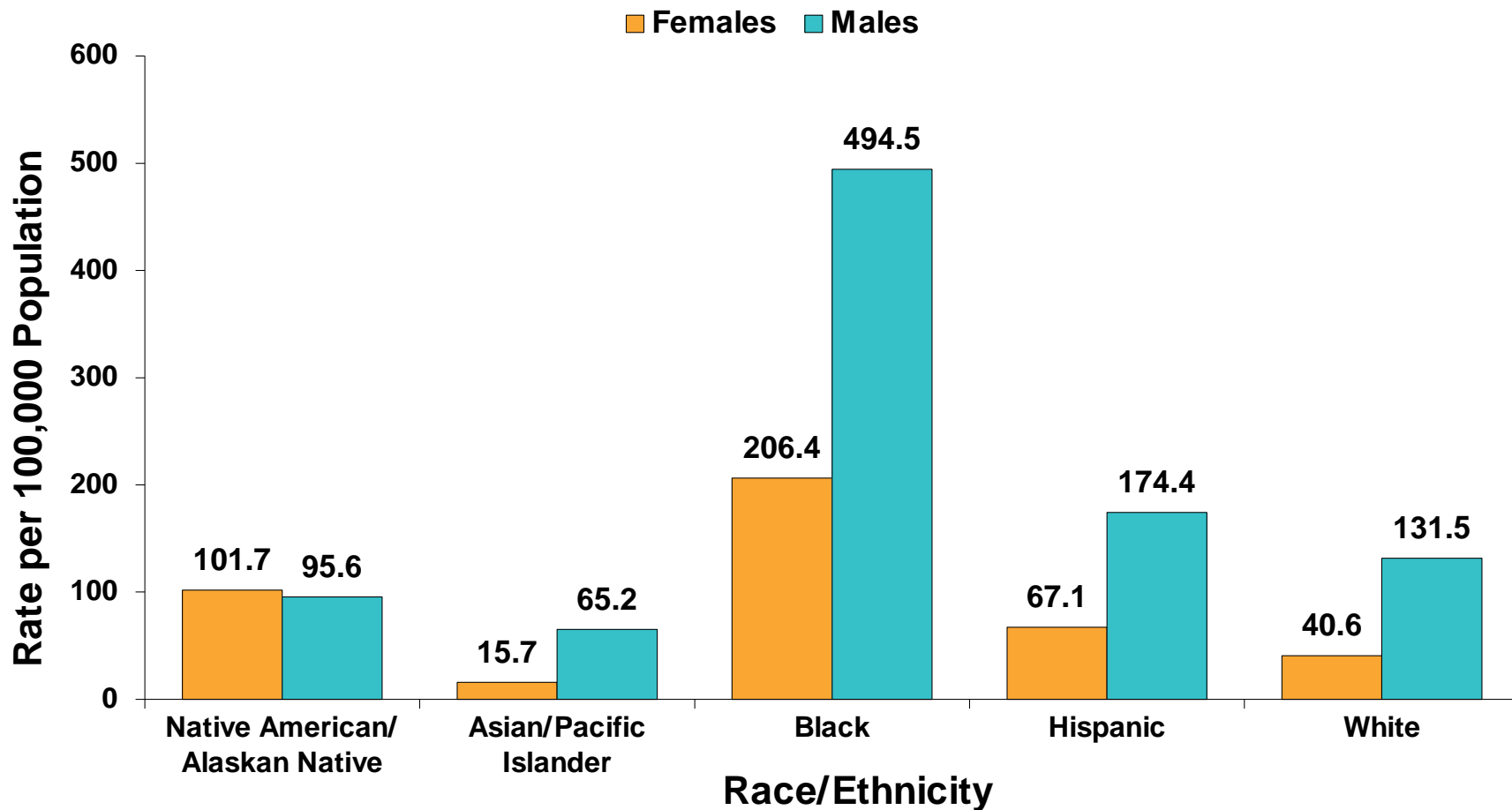
# Gonorrhea Cases by Gender and Race/Ethnicity San Diego County, 2017



Note: 39.8% of cases are missing race/ethnicity or gender data and are not included in counts above.

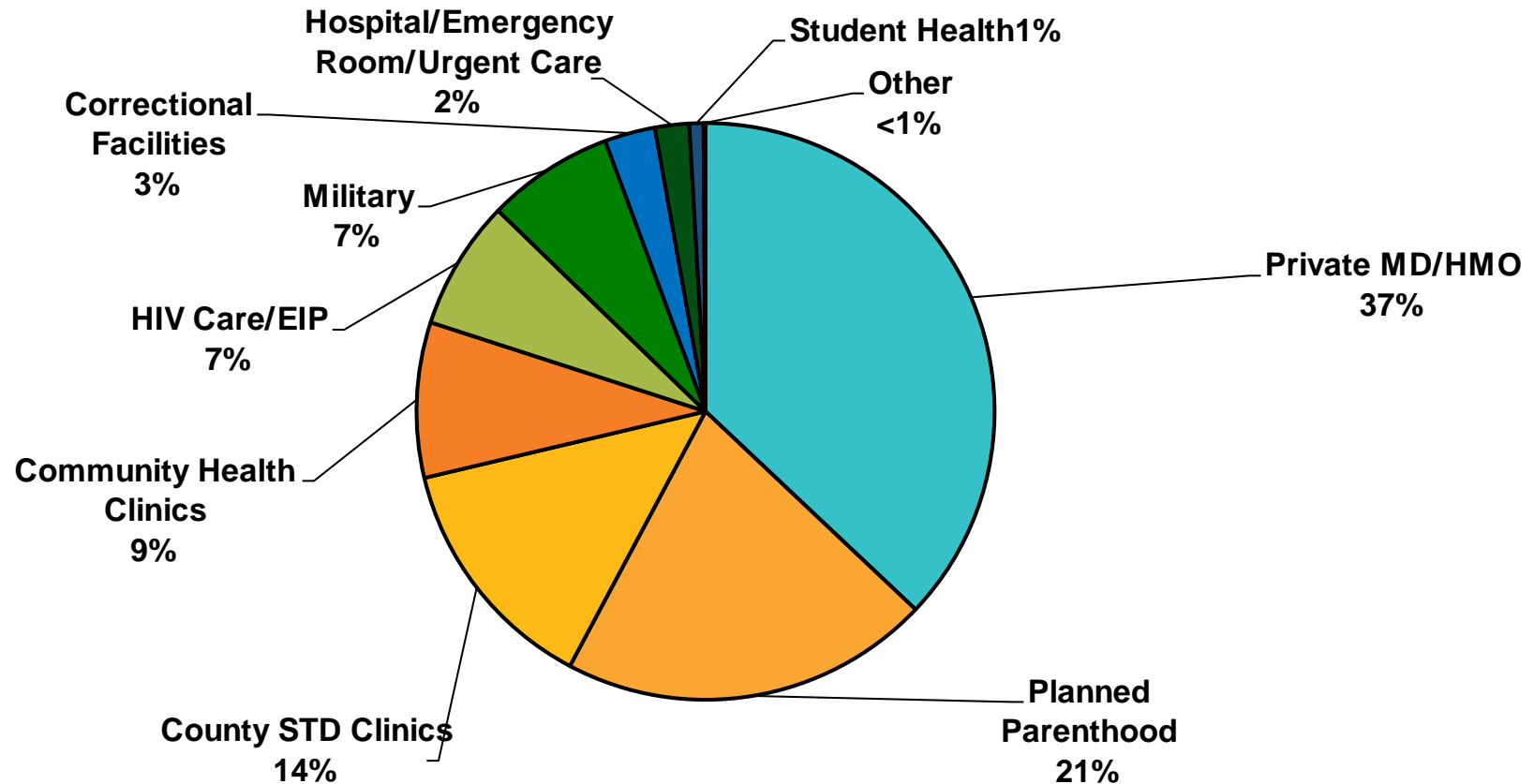


# Gonorrhea Rates by Gender and Race/Ethnicity San Diego County, 2017



Note: 39.8% of cases are missing race/ethnicity and are not included in rates above.  
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

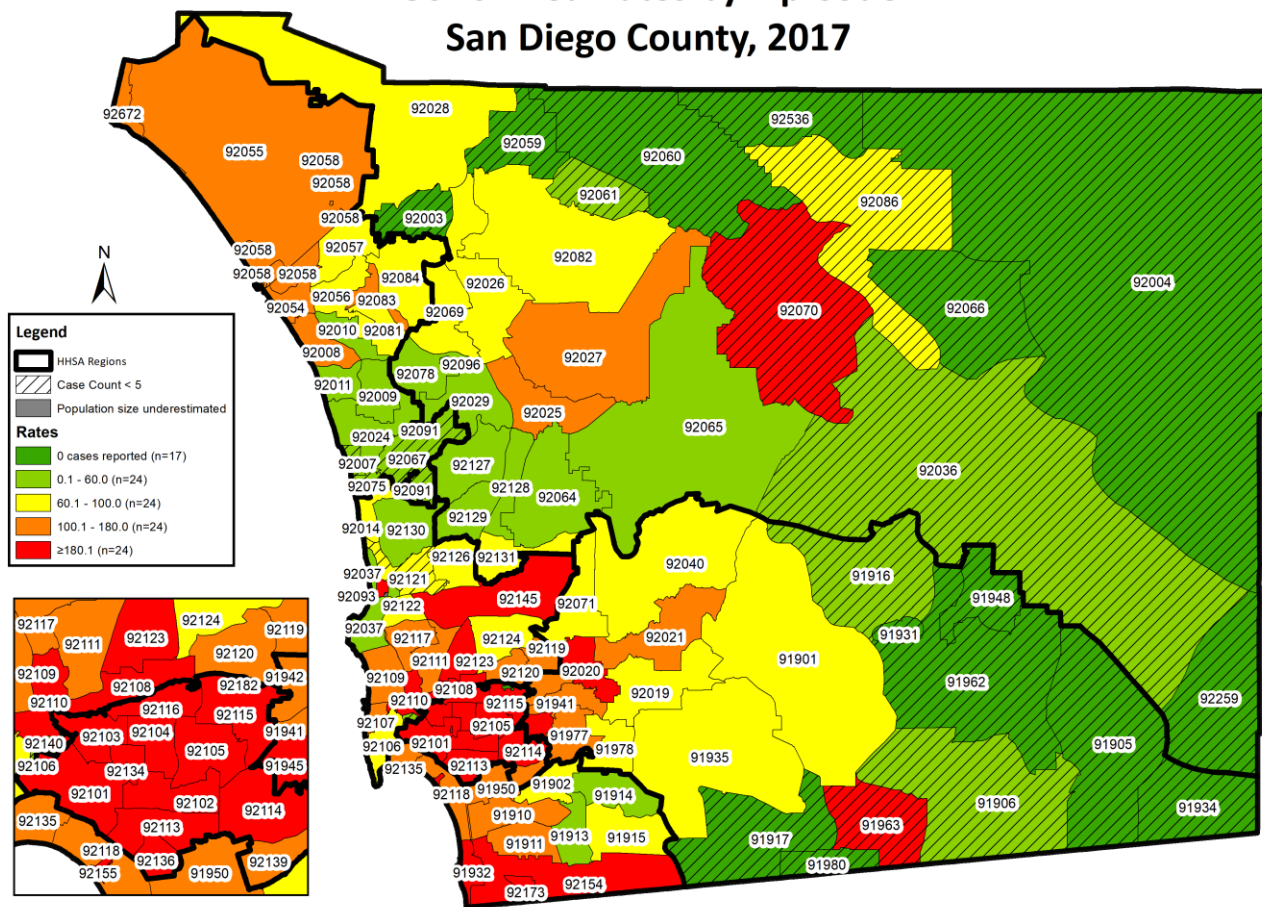
# Gonorrhea Cases by Reporting Facility Type San Diego County, 2017



Note: 398 cases missing provider type information  
\*EIP: Early Intervention Program



## Gonorrhea Rates by Zip Code San Diego County, 2017



Source: County of San Diego, Health and Human Services Agency, HSHB (HIV, STD, Hepatitis Branch), CalREDIE Database  
Map Date: July 5, 2018  
Contact: Lawrence Wang

# Syphilis



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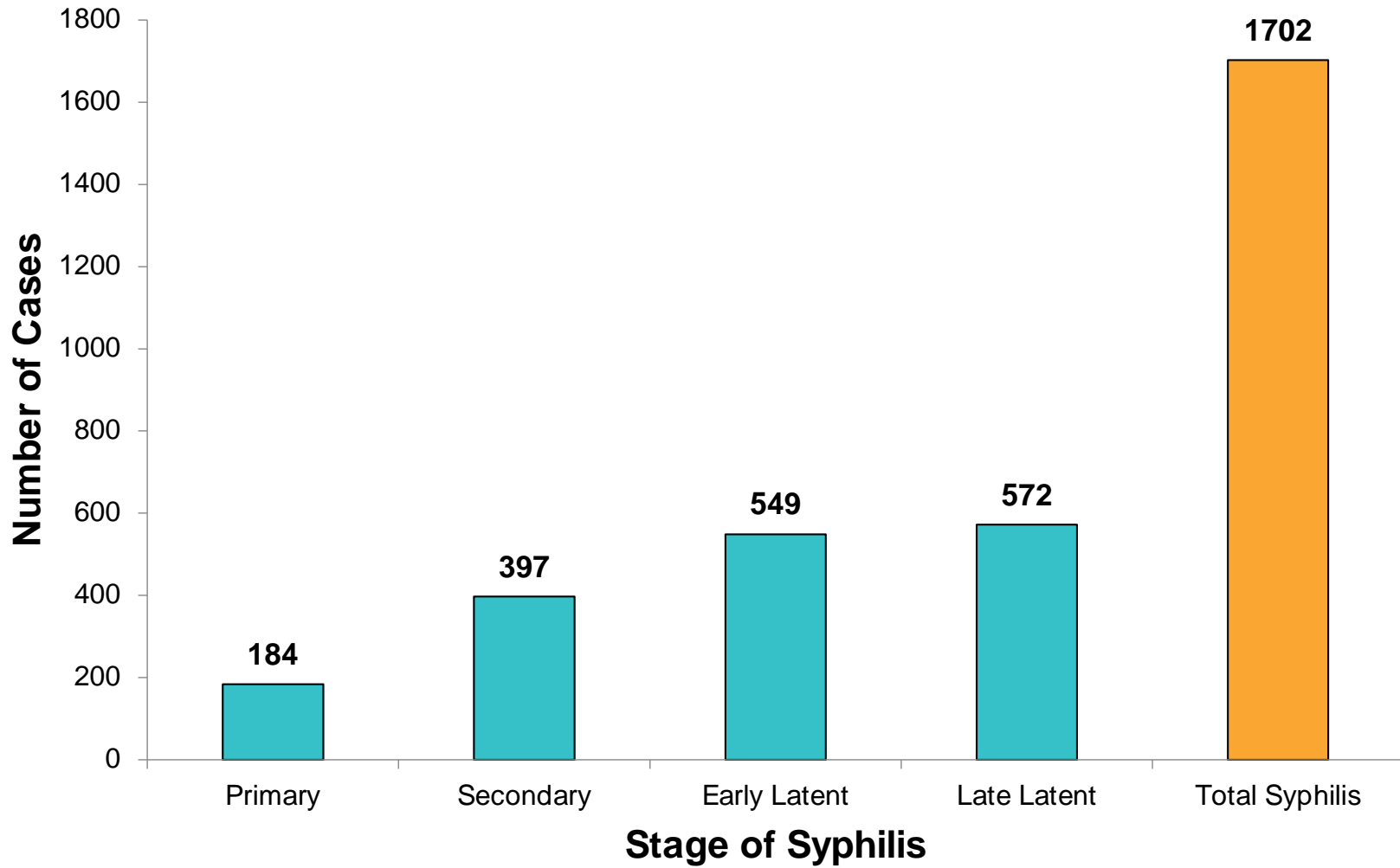
# Syphilis Stages and Significance

- Primary: painless ulcer(s) at site of initial contact with bacteria (*Treponema pallidum*)
- Secondary: widespread infection with variable presentation; typical findings include, but are not limited to, rash (may involve palms and soles), condylomata lata (wart-like lesions), mucous patches, and/or patchy alopecia.
- Early latent: no signs or symptoms of active infection; infection can be proven to have occurred <1 year ago.
- Late latent: no signs or symptoms of active infection; infection occurred ≥1 year ago, or duration is unknown.
- Sexual transmission between adults is only possible during early syphilis (i.e., primary, secondary, & early latent stages).
- Transmission from mother to child can occur during any stage of infection.

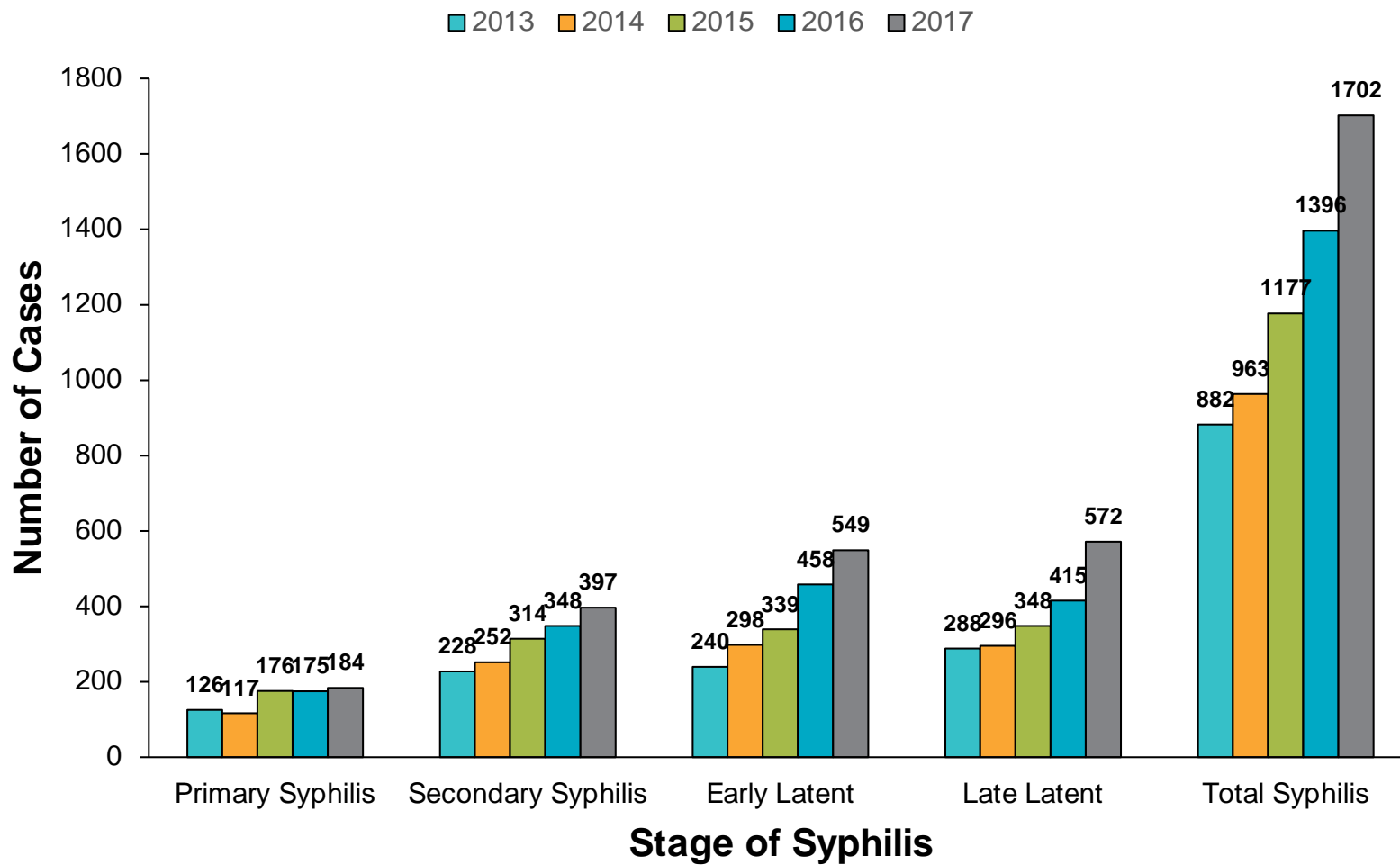


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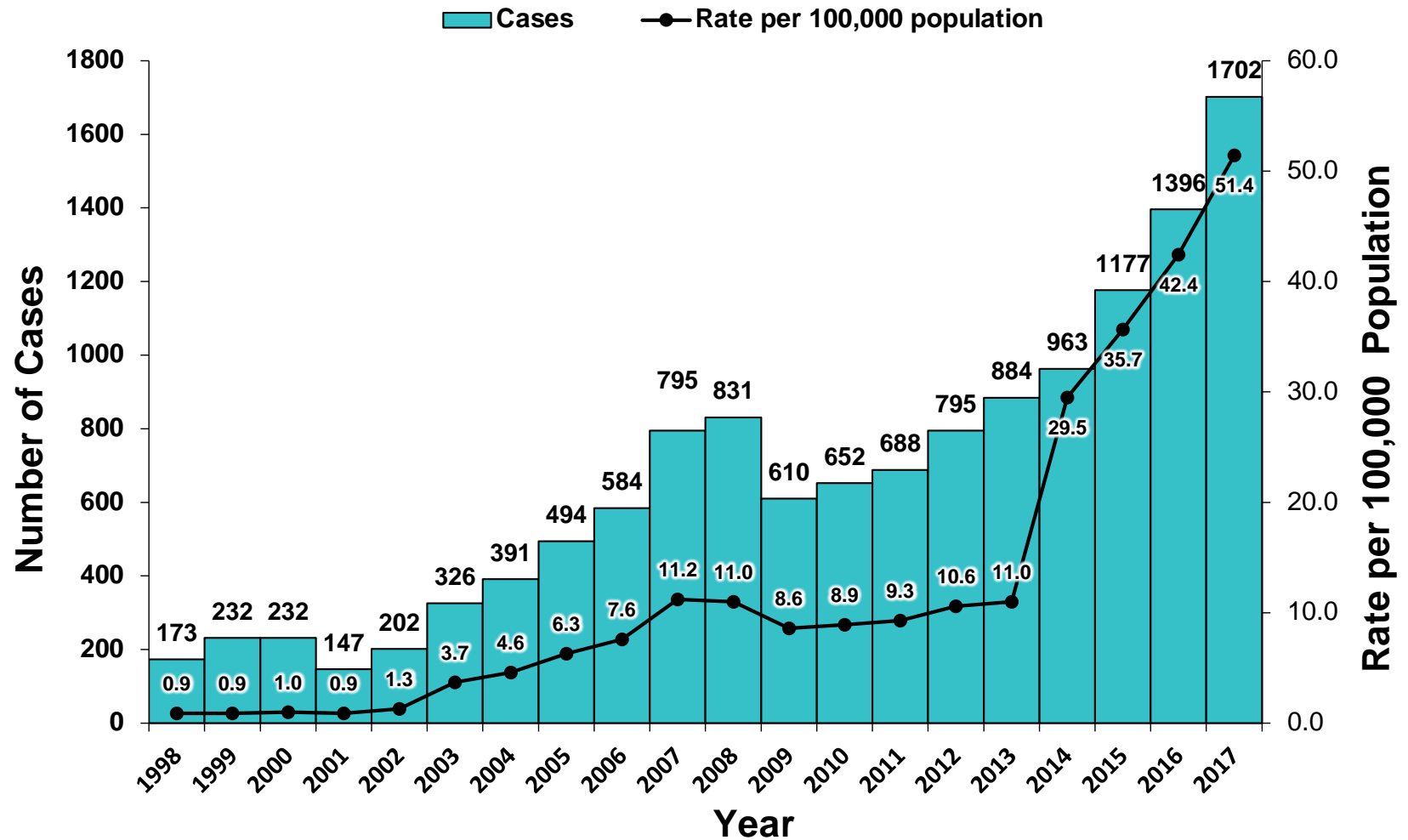
# Case Count by Stage of Syphilis San Diego County, 2017



# Case Count by Stage of Syphilis San Diego County, 2013-2017

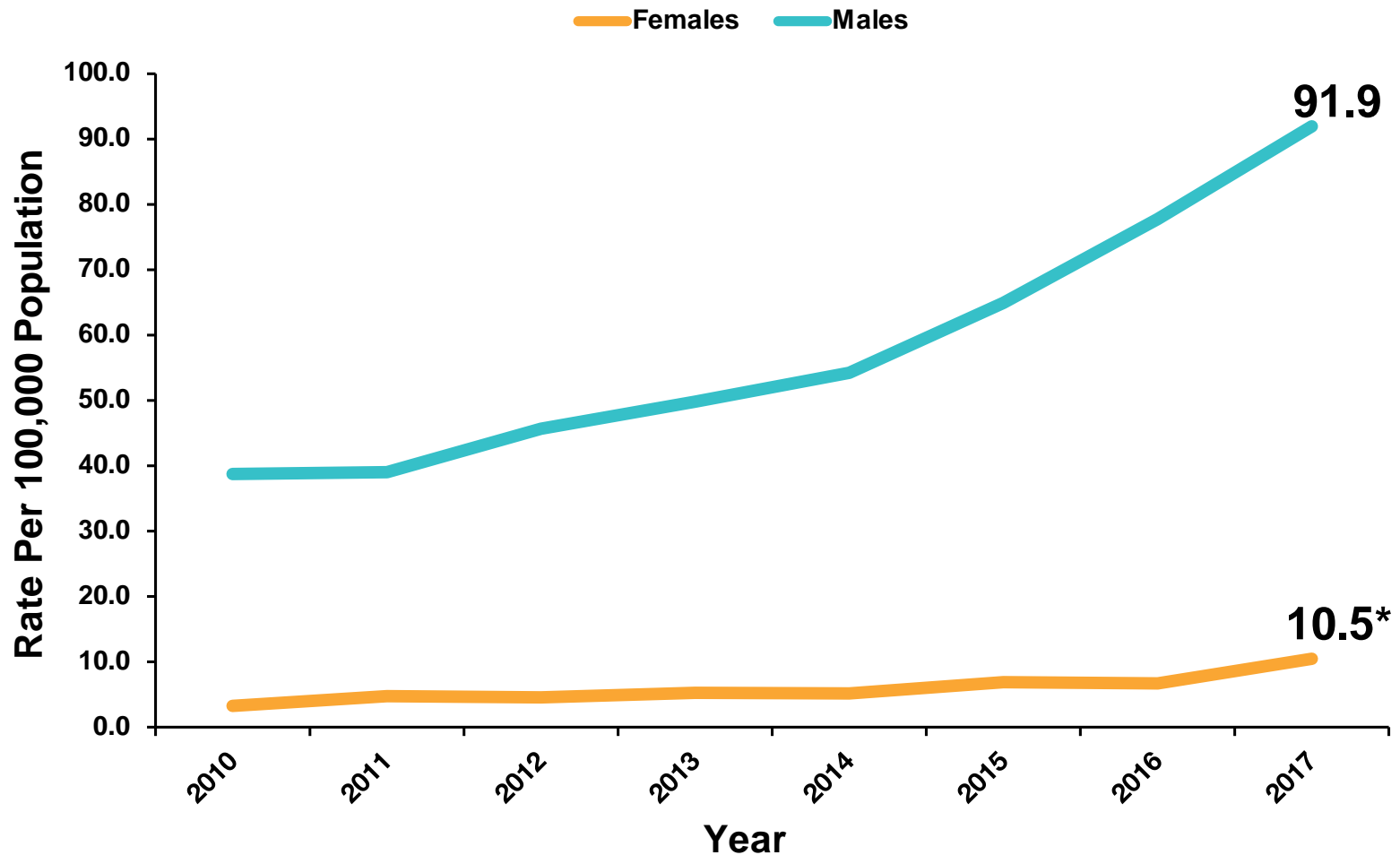


# Syphilis (All Stages) Cases and Rates by Year San Diego County, 1998-2017



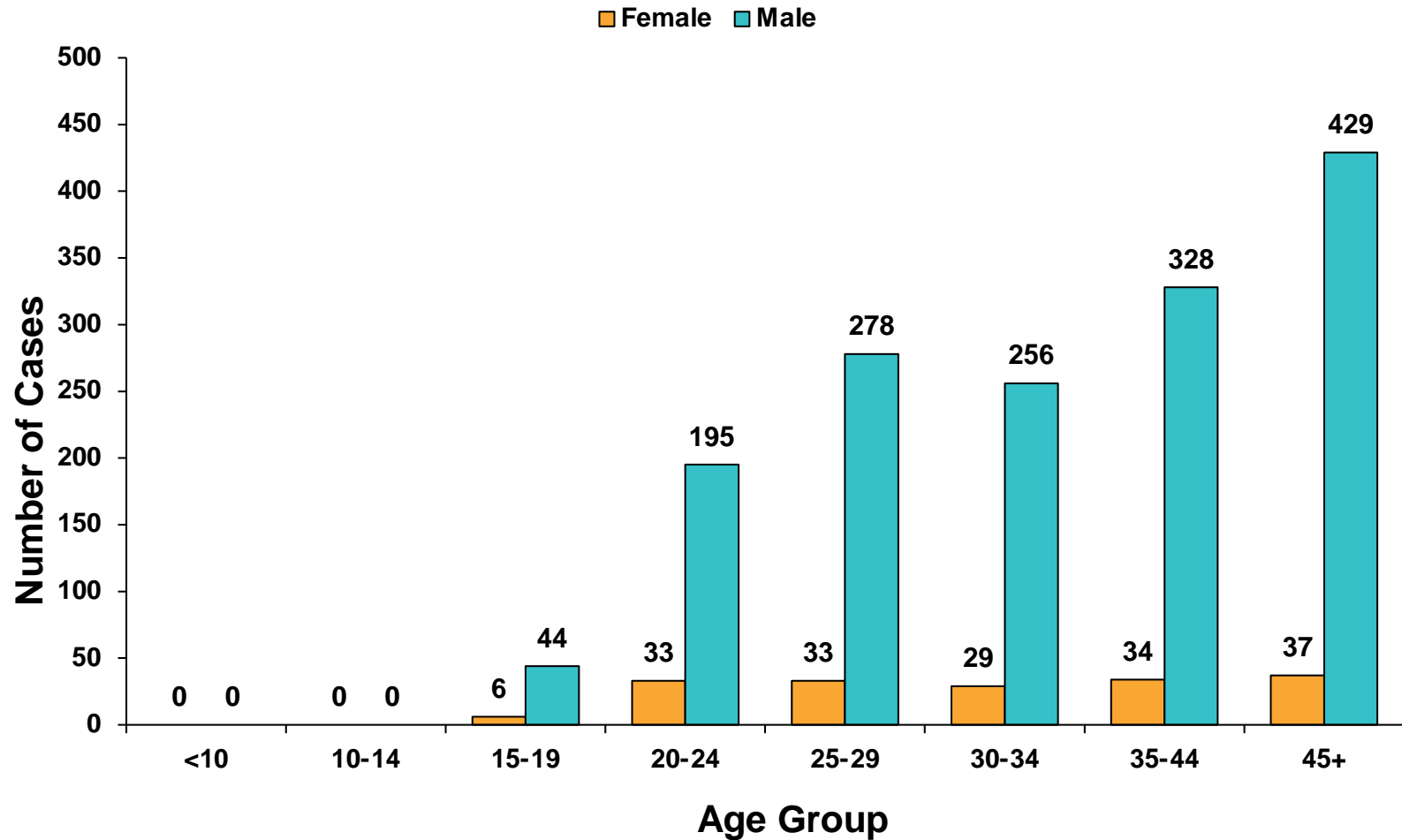


# Syphilis (All Stages) Rates by Gender and Year San Diego County, 2010 - 2017

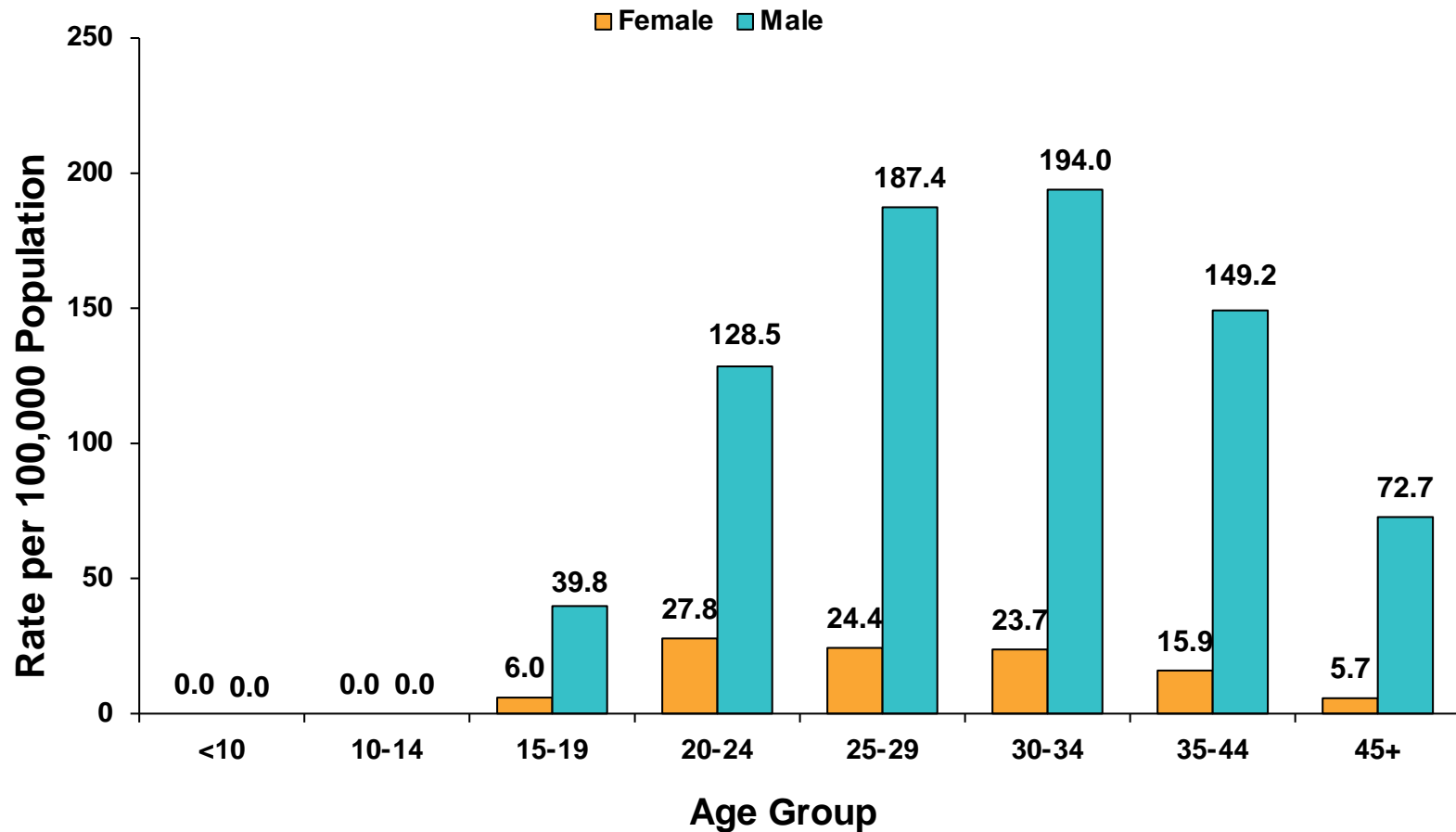


\* Between 2016 and 2017 the female syphilis rate increased by 55% and the number of cases increased by 56%.

# Syphilis (All Stages) Cases by Gender and Age San Diego County, 2017

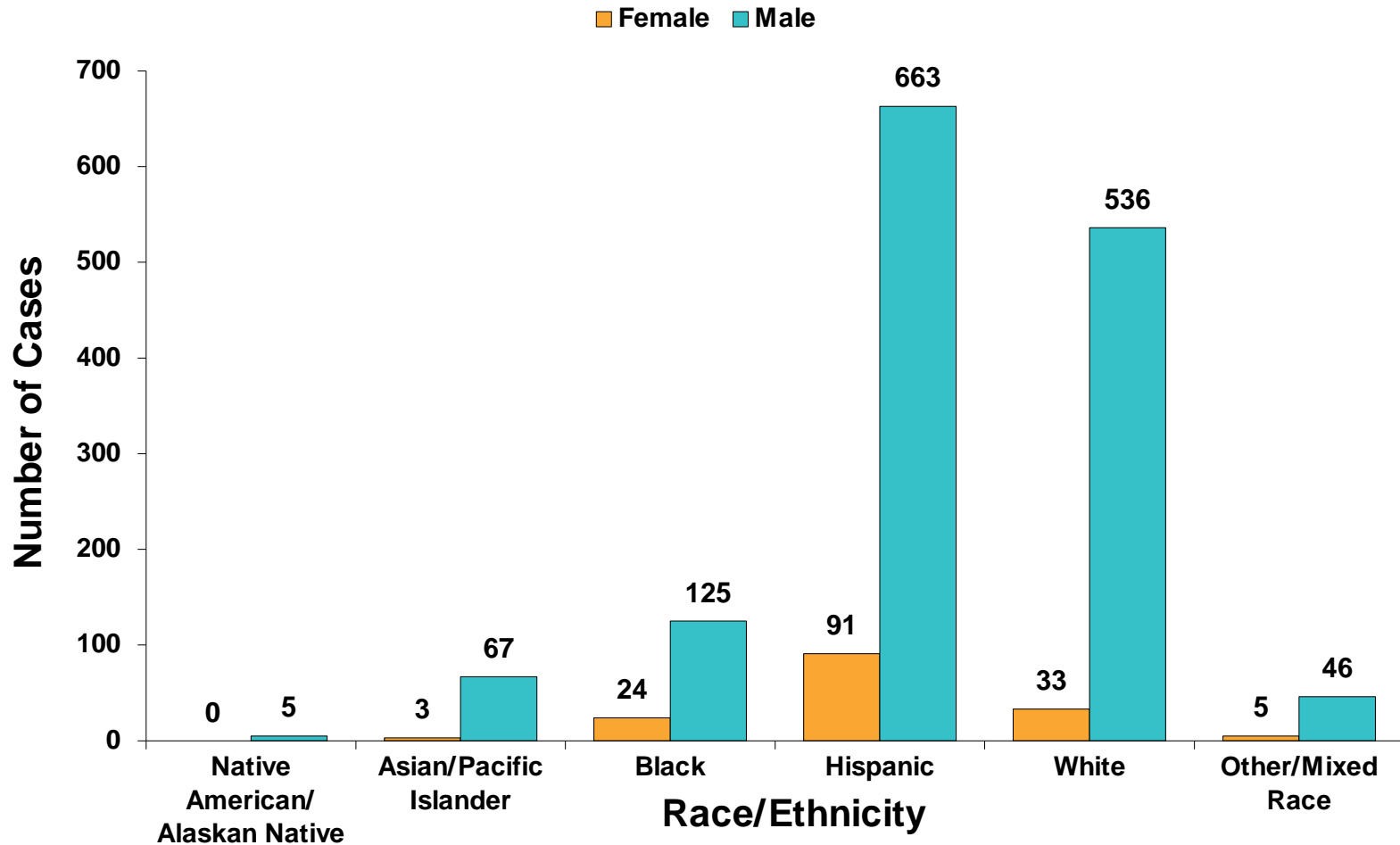


# Syphilis (All Stages) Rates by Gender and Age San Diego County, 2017



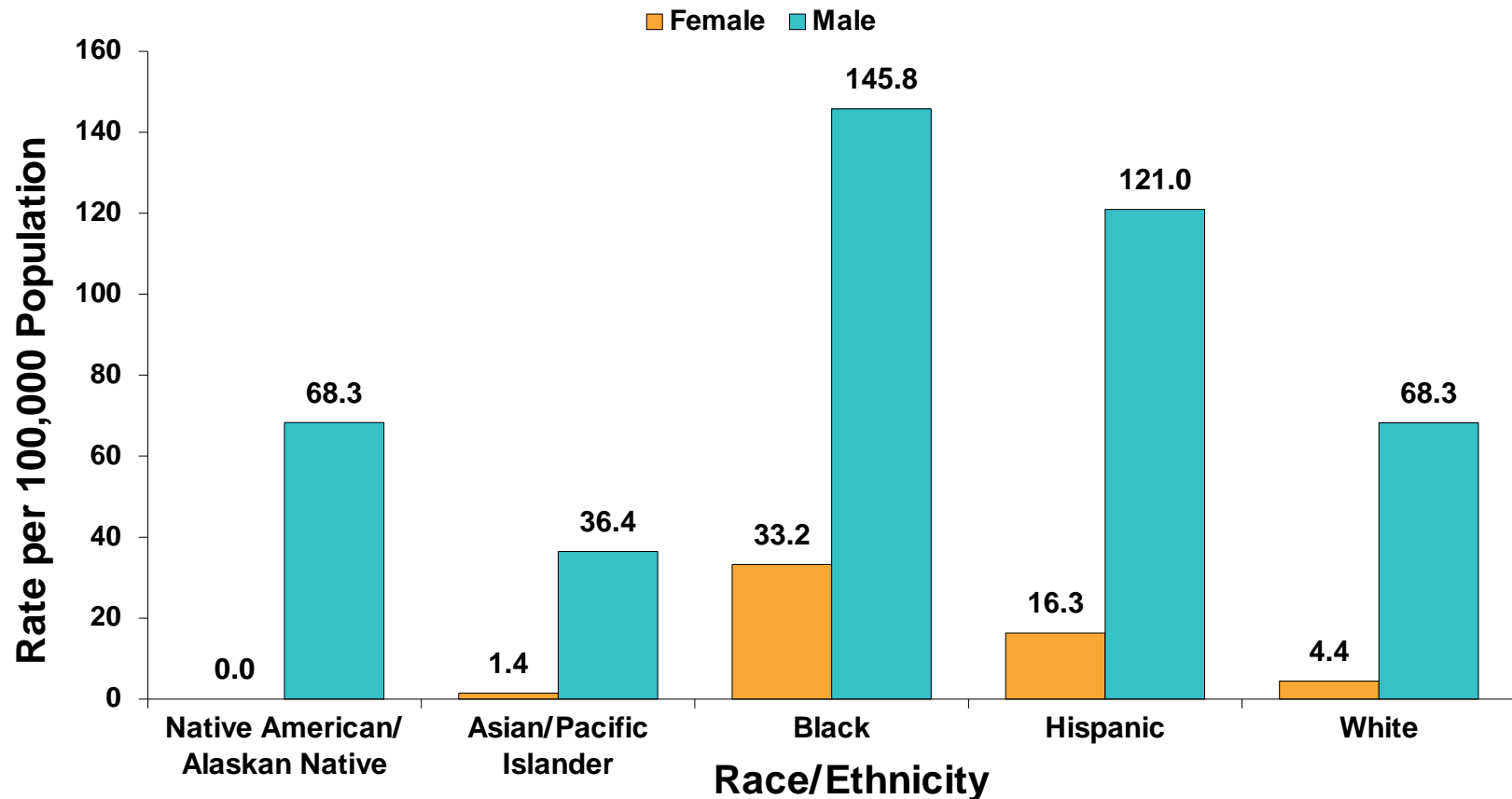
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

# Syphilis (All Stages) Cases by Gender and Race/Ethnicity San Diego County, 2017



Note: Counts exclude 104 cases missing race/ethnicity information

# Syphilis (All Stages) Rates by Gender and Race/Ethnicity San Diego County, 2017



Note: Rates exclude 104 cases missing race/ethnicity information and 51 cases with other/mixed race designations.  
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.



### San Diego County, 2017

**Legend**

- HHSA Regions
- Cased Count < 5
- Rates**
- 0 cases reported (n=25)
- 0.1 - 16.5 (n=22)
- 16.6 - 30.0 (n=22)
- 30.1 - 57.0 (n=22)
- ≥57.1 (n=22)

Map showing San Diego County, 2017, with HHSA Regions and Cased Count by rate. The map is color-coded by rate: 0 cases reported (n=25) in green, 0.1 - 16.5 (n=22) in light green, 16.6 - 30.0 (n=22) in yellow, 30.1 - 57.0 (n=22) in orange, and ≥57.1 (n=22) in red. Diagonal hatching indicates Cased Count < 5. A legend and north arrow are included.

COUNTY OF SAN DIEGO  
  
 HEALTH AND HUMAN SERVICES AGENCY  
 PUBLIC HEALTH SERVICES



# Primary & Secondary Syphilis



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# Key Points

## Primary & Secondary Syphilis in San Diego County

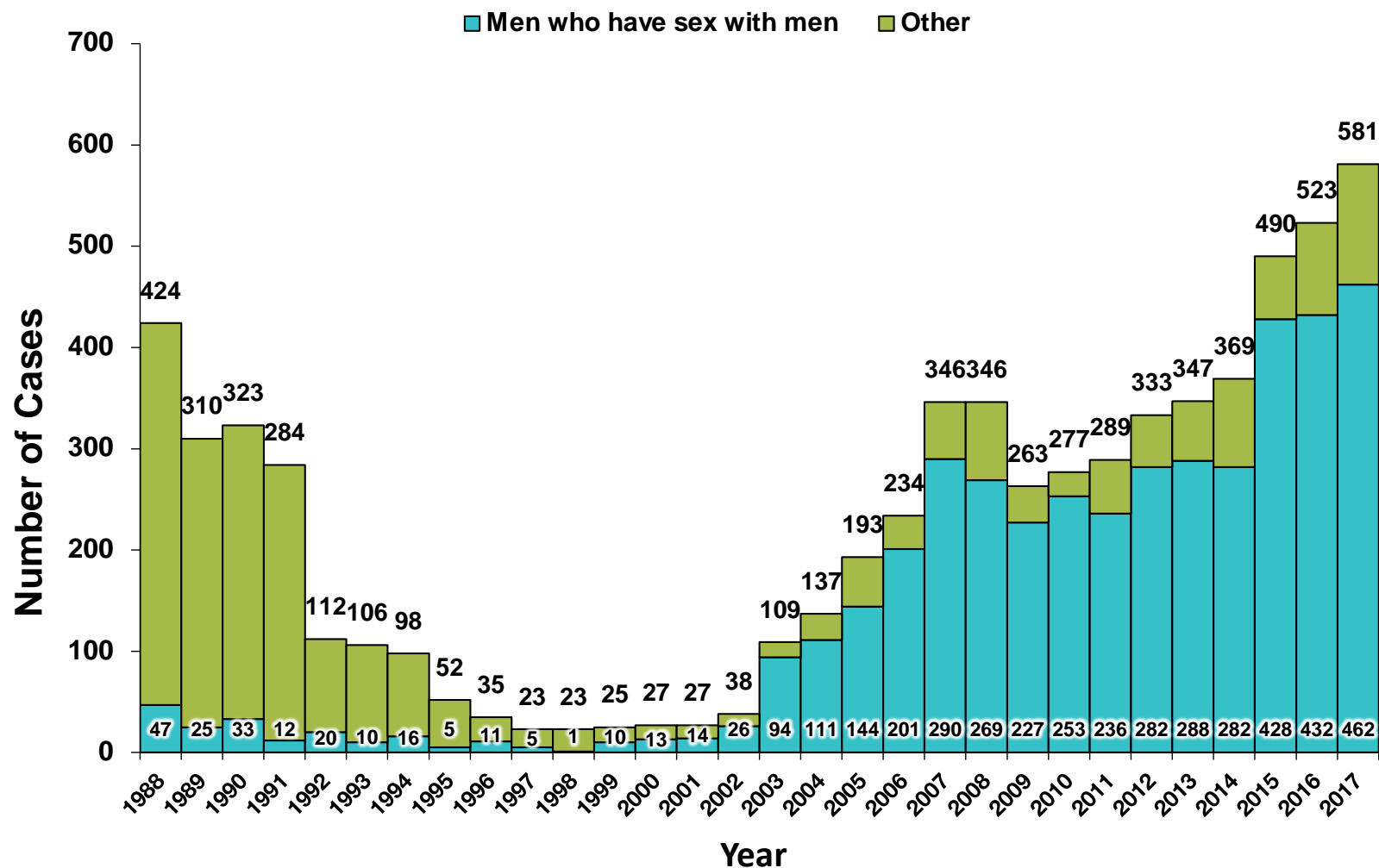
- Cases of primary and secondary syphilis increased by 11.1% from 523 cases in 2016 to 581 cases in 2017.
- The overall rate of primary and secondary syphilis increased by 10.7% from 15.9 cases per 100,000 in 2016 to 17.6 cases per 100,000 in 2017.
- The majority of cases are male; 79.5% of cases are men who have sex with men (MSM).
- Rates are highest among males aged 25 to 34 years.
- African-American/black males have the highest rate of infection; the rate of infection in African-American/black males is 1.8 times that of white males.
- An estimated 41% of MSM primary and secondary syphilis cases are co-infected with HIV.



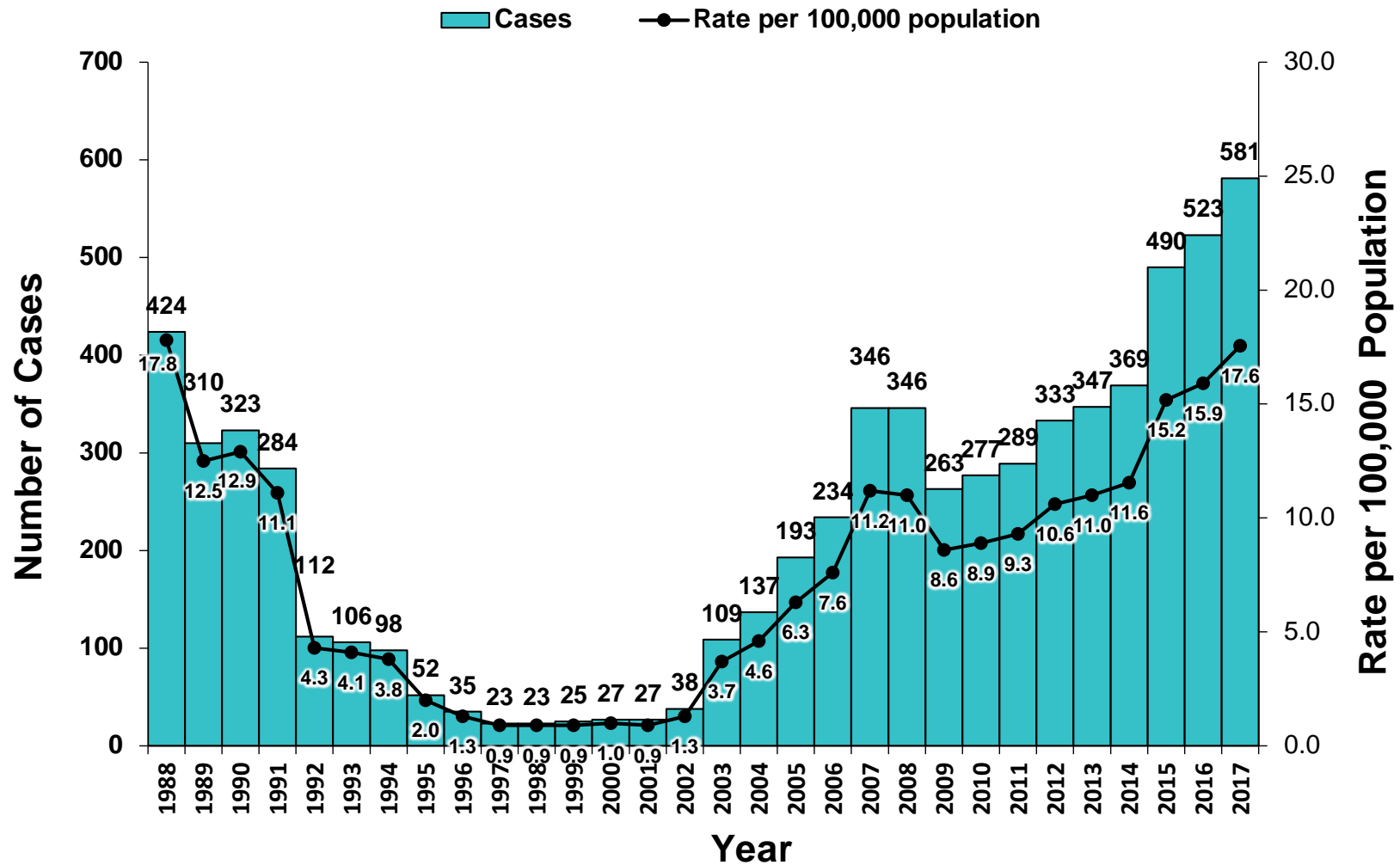
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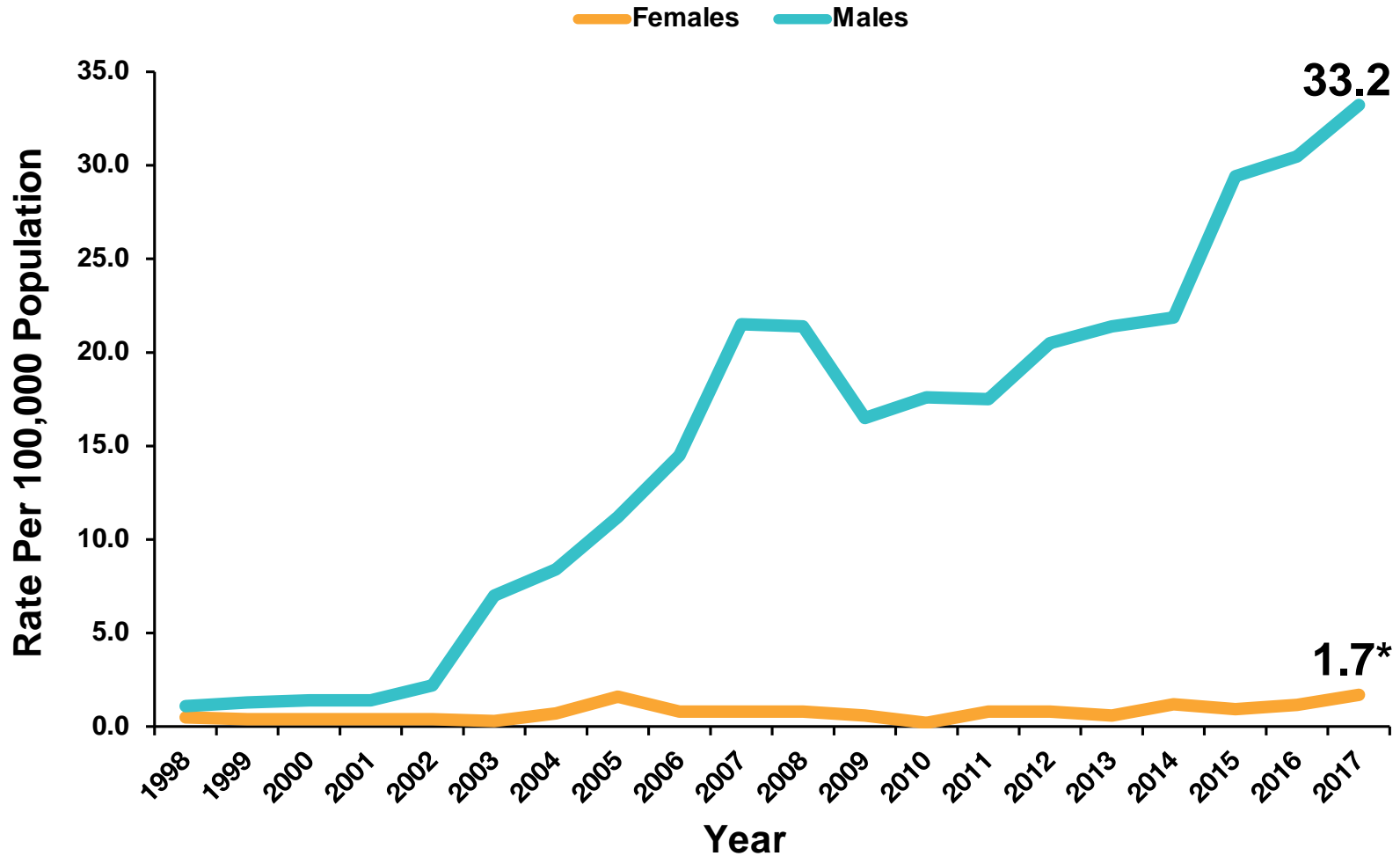
# Primary & Secondary Syphilis Cases by Year San Diego County, 1988 - 2017



# Primary & Secondary Syphilis Cases and Rates by Year San Diego County, 1988-2017

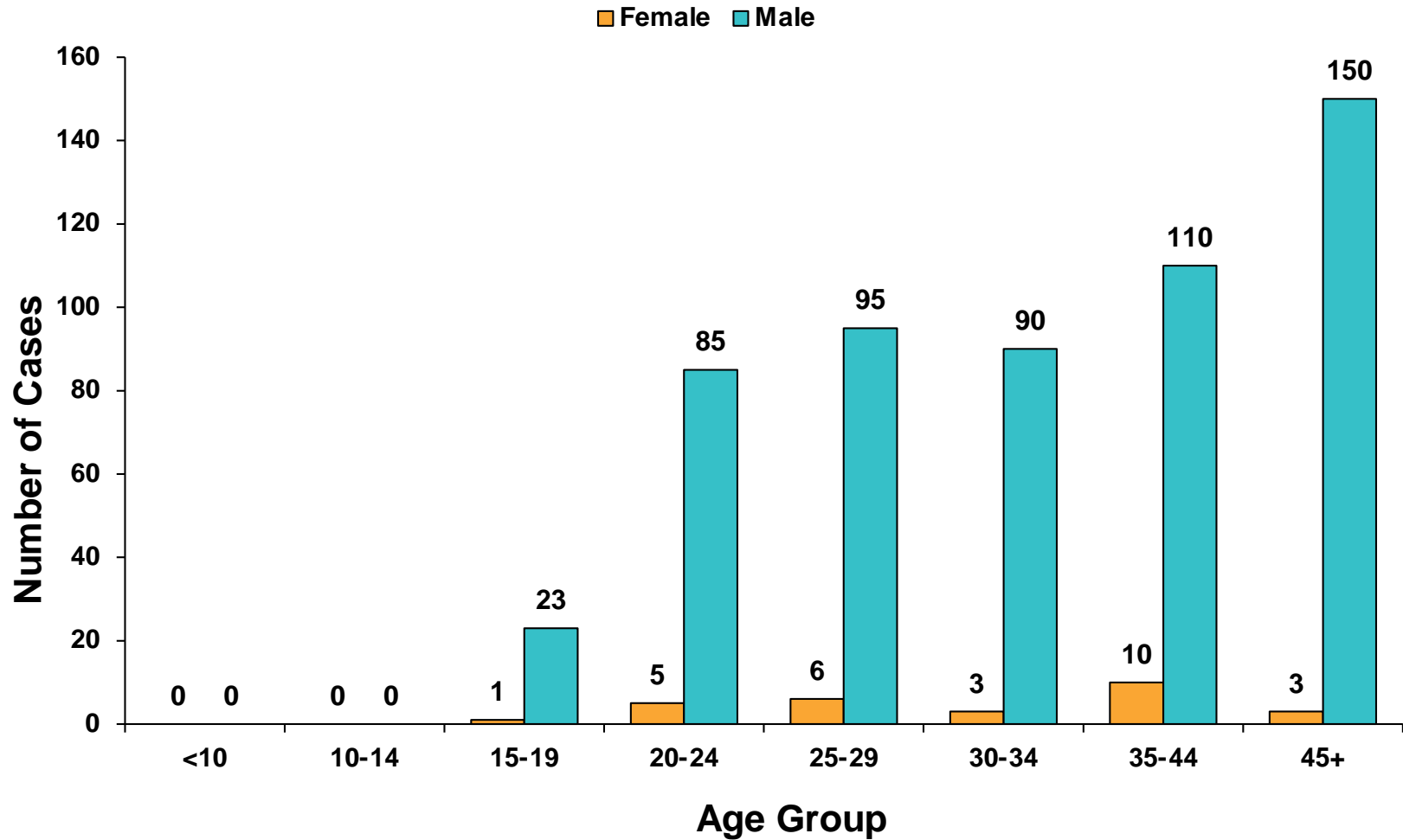


# Primary & Secondary Syphilis Rates by Gender and Year San Diego County, 1998 - 2017

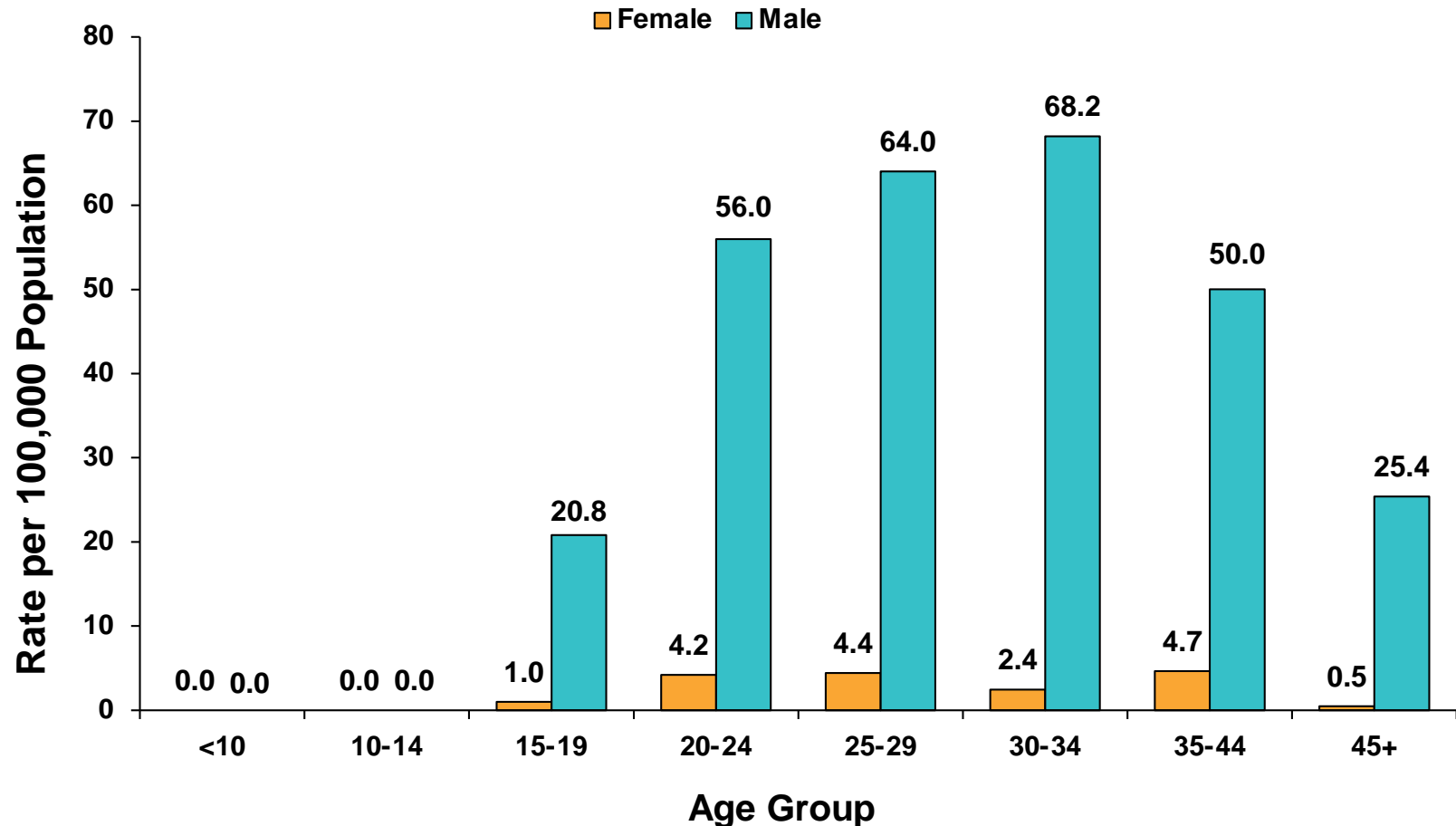


\* Between 2016 and 2017 the female primary and secondary syphilis rate increased by 42% and the number of cases increased by 47.4%.

# Primary & Secondary Syphilis Cases by Gender and Age San Diego County, 2017

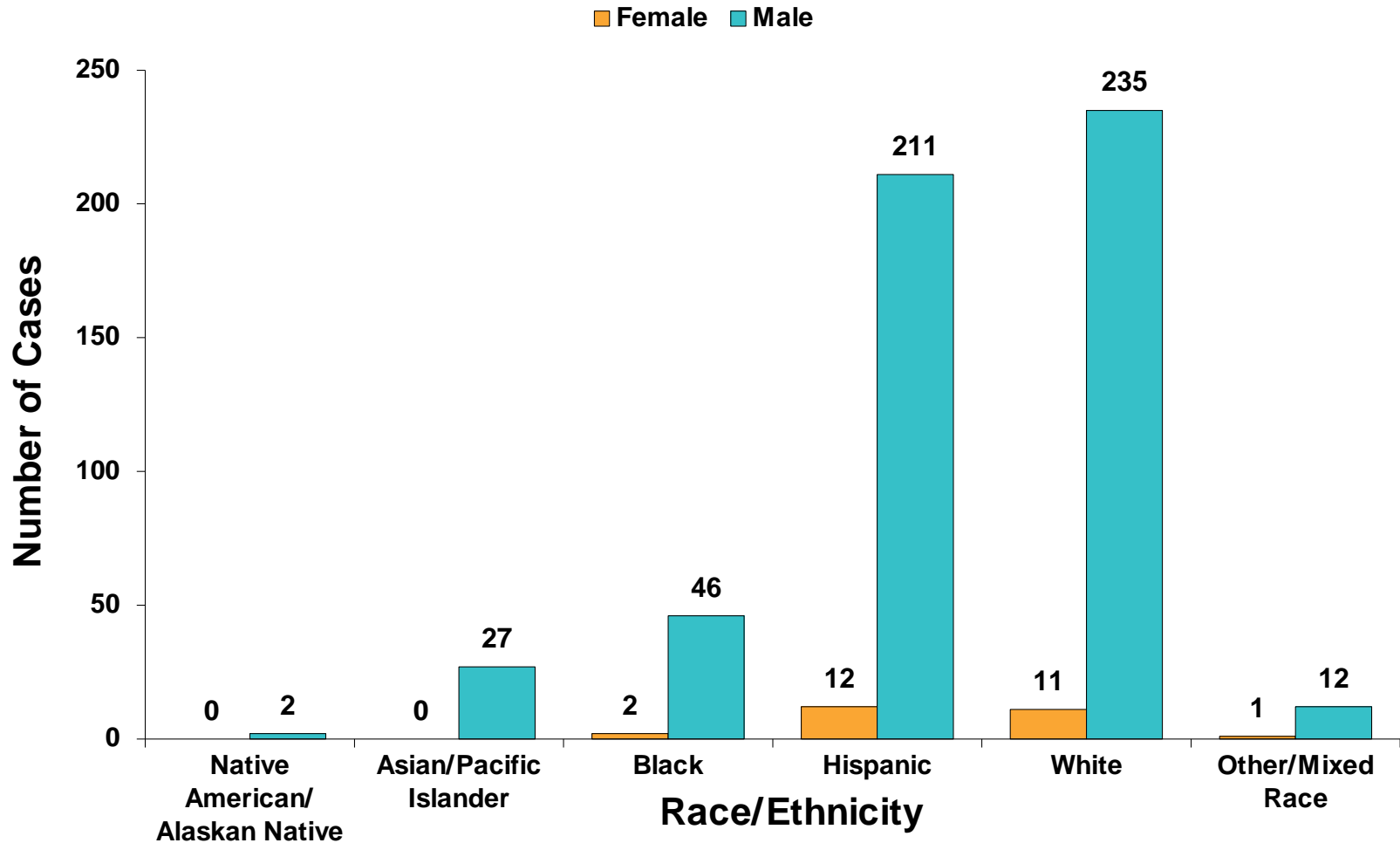


# Primary & Secondary Syphilis Rates by Gender and Age San Diego County, 2017



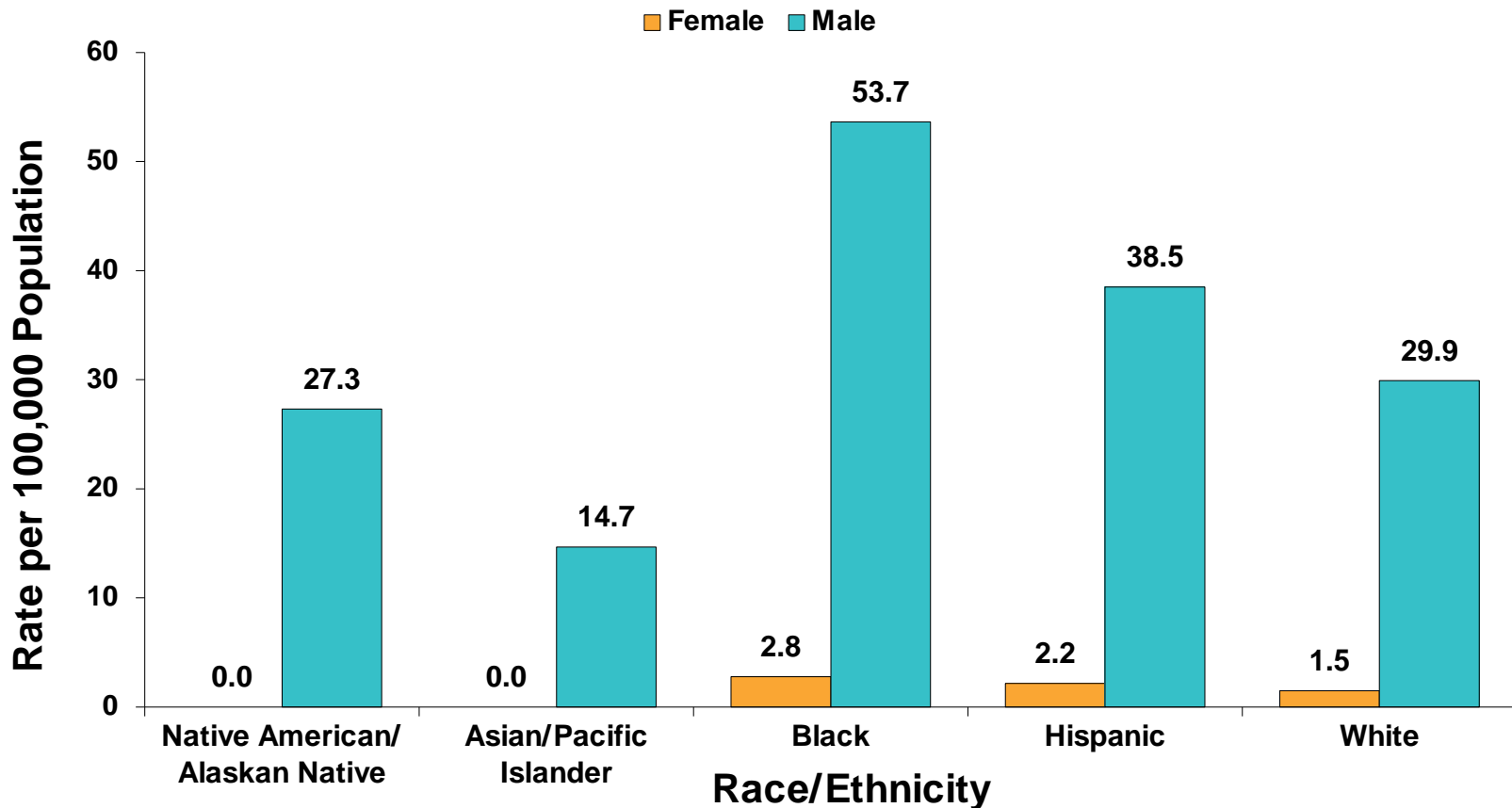
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

# Primary & Secondary Syphilis Cases by Gender and Race/Ethnicity San Diego County, 2017



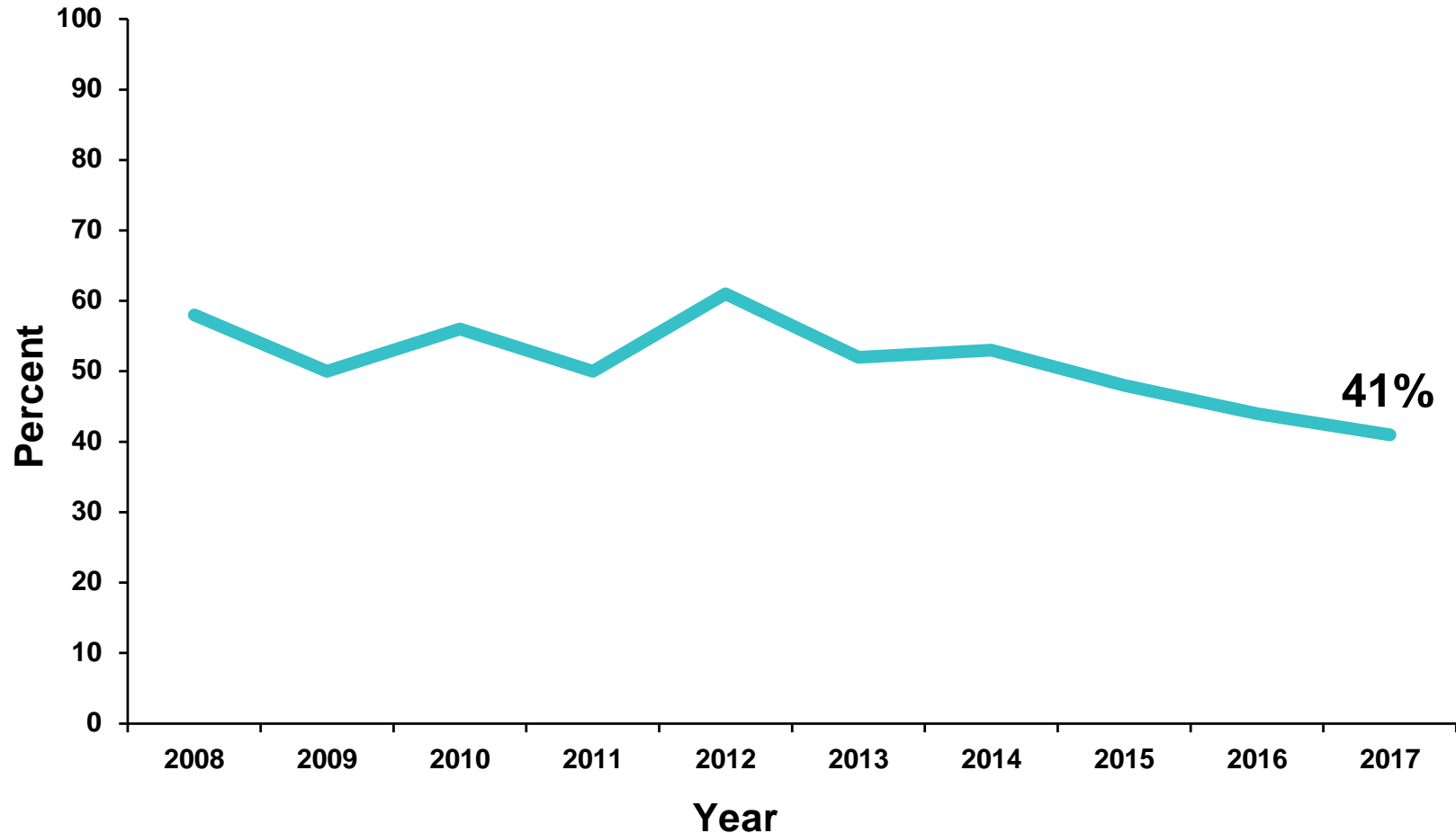
Note: Counts exclude 22 cases missing race/ethnicity information

# Primary & Secondary Syphilis Rates by Gender and Race/Ethnicity San Diego County, 2017



Note: Rates exclude 22 cases missing race/ethnicity information and 13 cases with other/mixed race designations .  
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

# Percent of MSM\* Primary & Secondary Syphilis Cases Co-Infected with HIV by Year San Diego County, 2008 - 2017



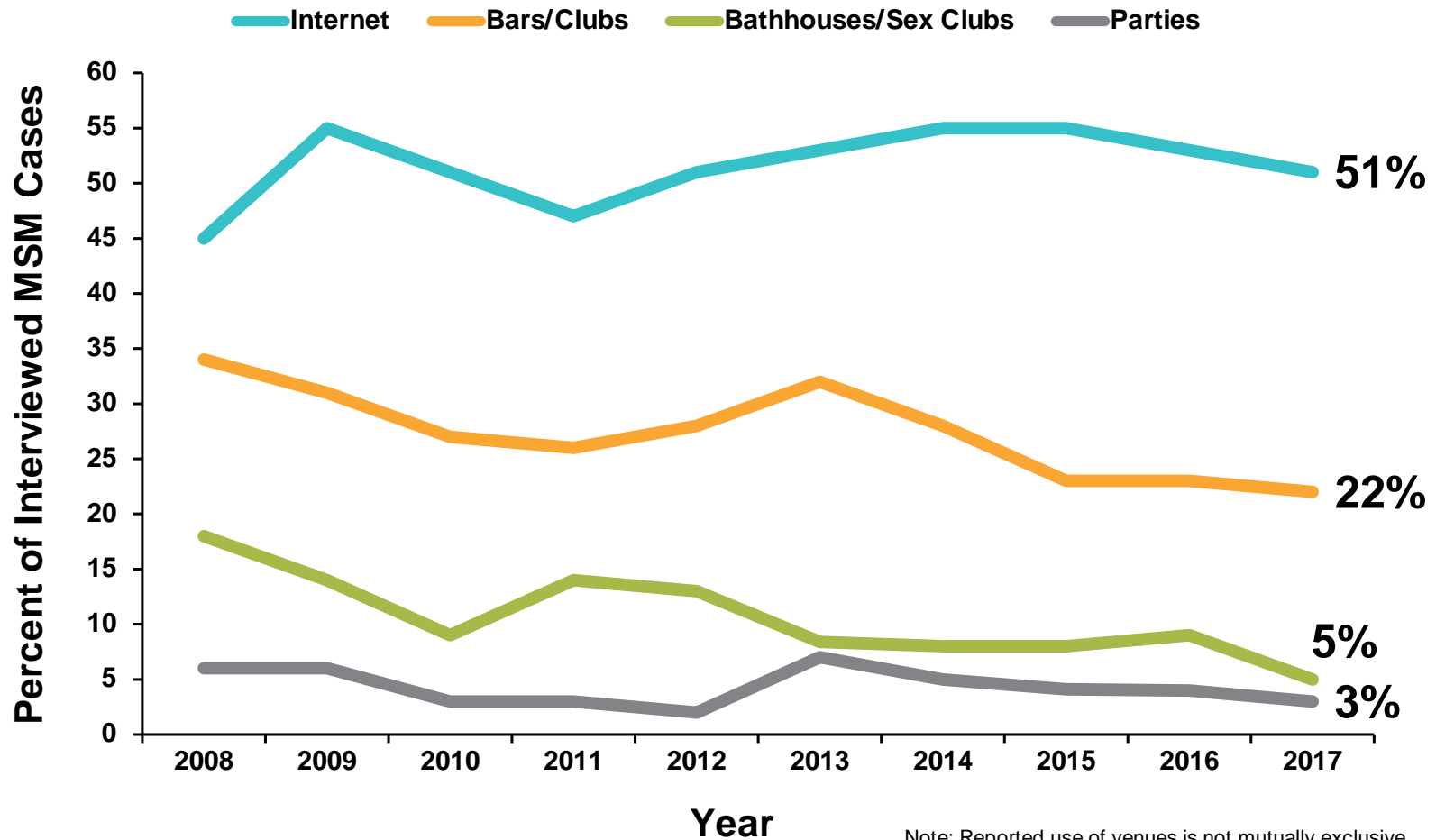
\*MSM: Men Who Have Sex With Men.



# Meeting Venues Among Interviewed MSM\*

## Primary & Secondary Syphilis Cases

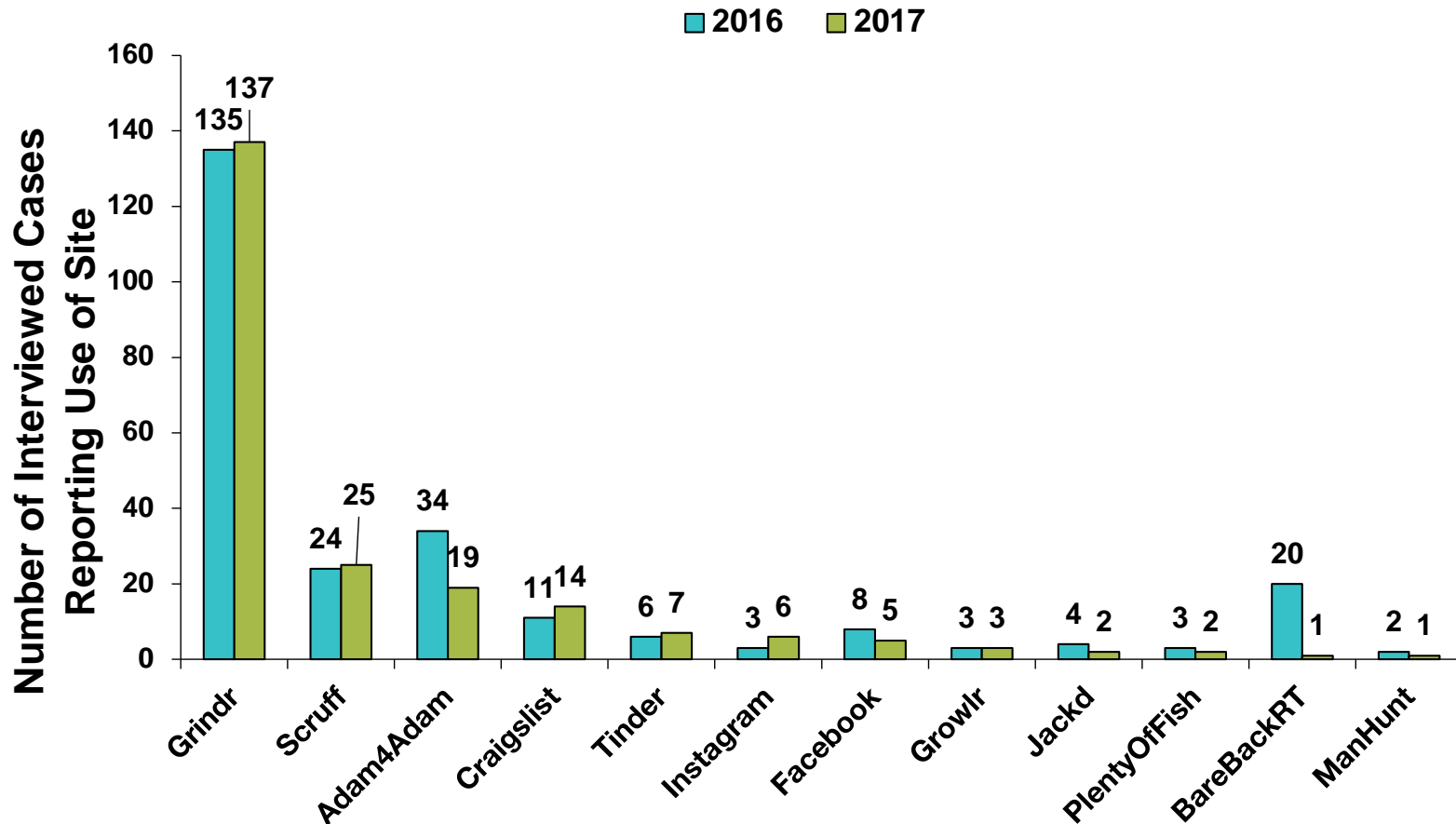
### San Diego County, 2008 - 2017



Note: Reported use of venues is not mutually exclusive.

\*MSM: Men Who Have Sex With Men.

# Reported Use of Internet-Based Services\* Among MSM\*\* Primary & Secondary Syphilis Cases San Diego County, 2016 – 2017

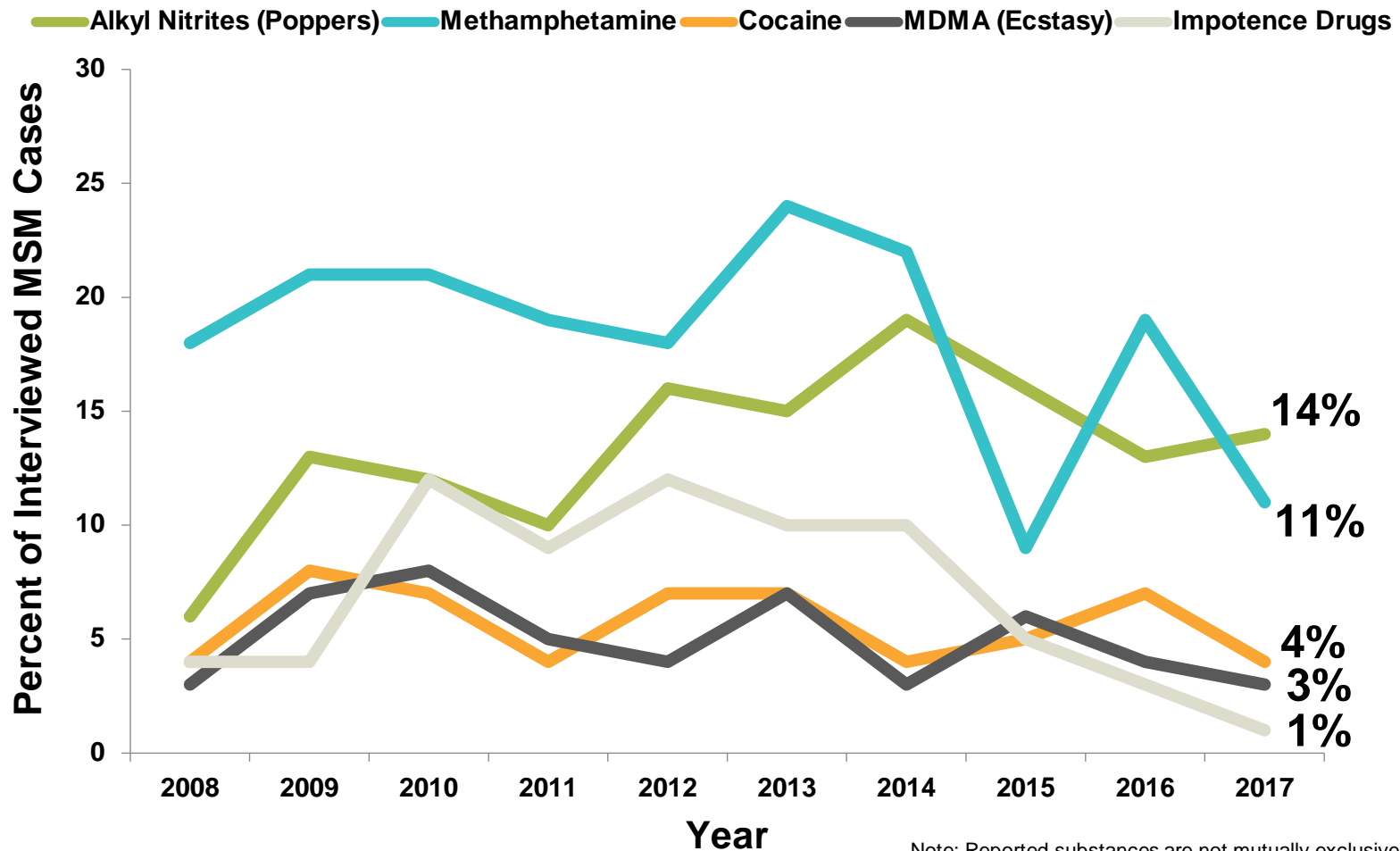


Note: Reported use of sites is not mutually exclusive.

\* Included websites have been used by at least 2 MSM cases per year in 2016 or 2017

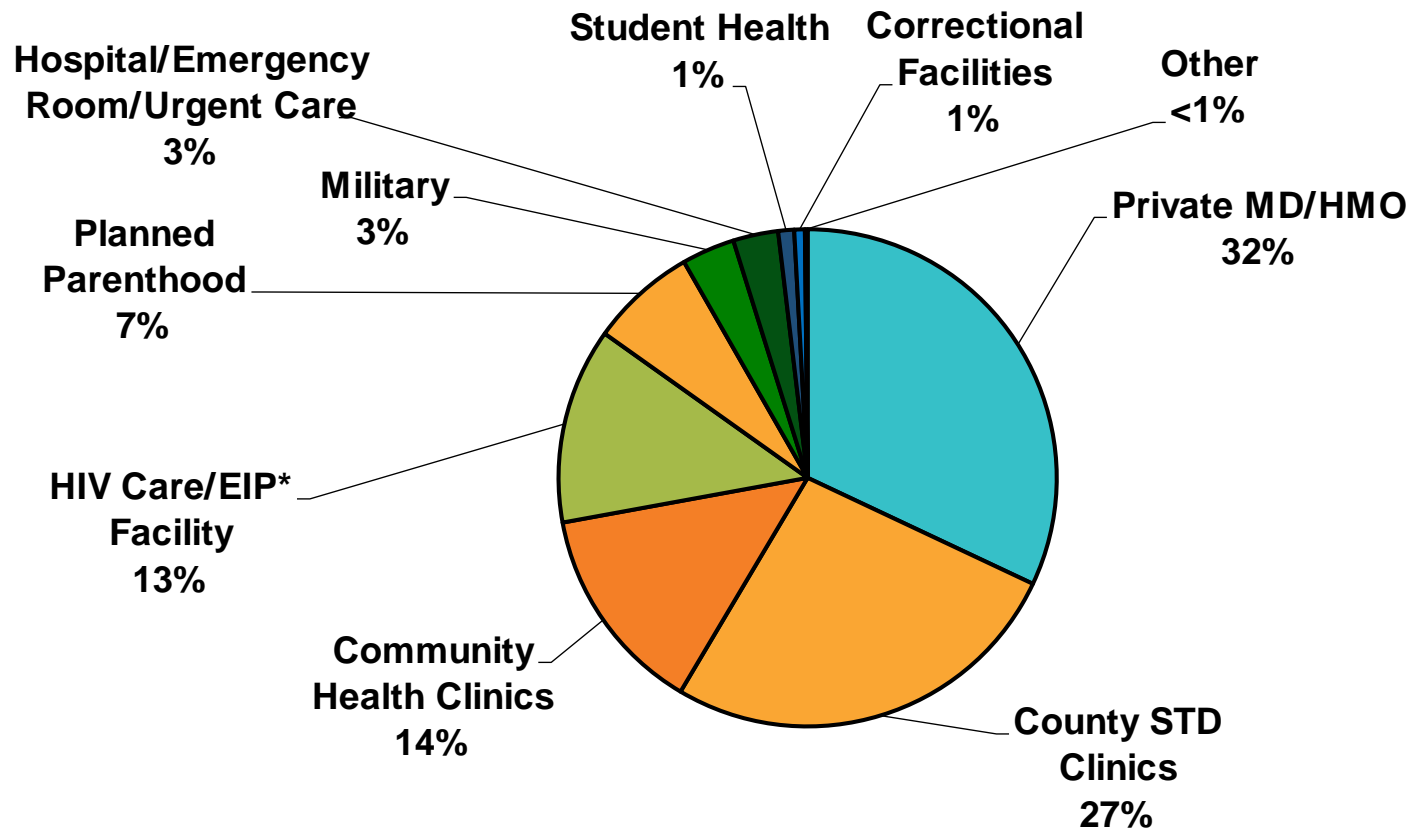
\*\*MSM: Men who have sex with men.

# Reported Substance Use of Interviewed MSM\* Primary & Secondary Syphilis Cases by Year San Diego County, 2008 - 2017



Note: Reported substances are not mutually exclusive.  
\*MSM: Men Who Have Sex With Men.

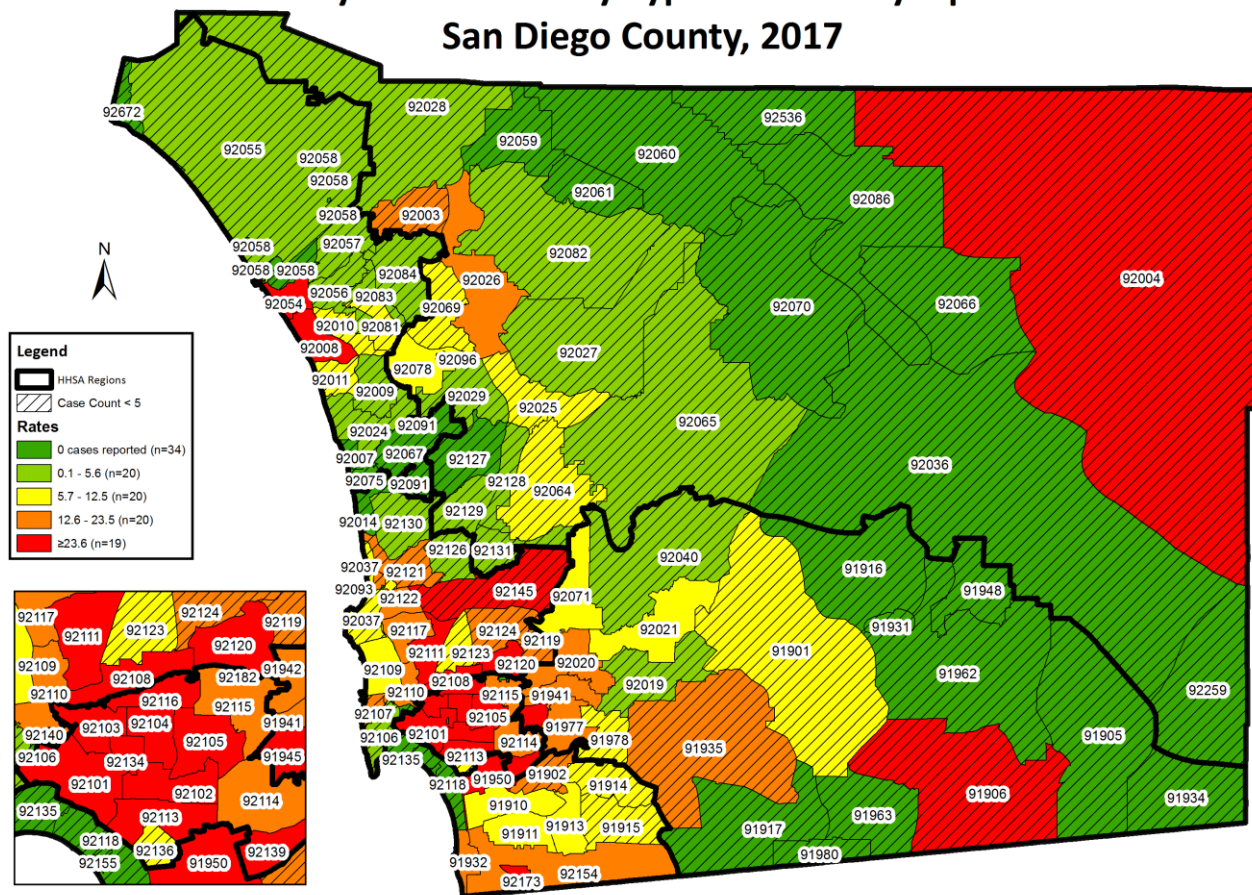
# Primary & Secondary Syphilis Cases by Reporting Facility Type San Diego County, 2017



\*EIP: Early Intervention Program



## Primary and Secondary Syphilis Rates by Zip Code San Diego County, 2017



Source: County of San Diego, Health and Human Services Agency, HSHB (HIV, STD, Hepatitis Branch), CalREDIE Database  
Map Date: July 5, 2018  
Contact: Lawrence Wang

# Early (Primary, Secondary, & Early Latent) Syphilis



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# Key Points

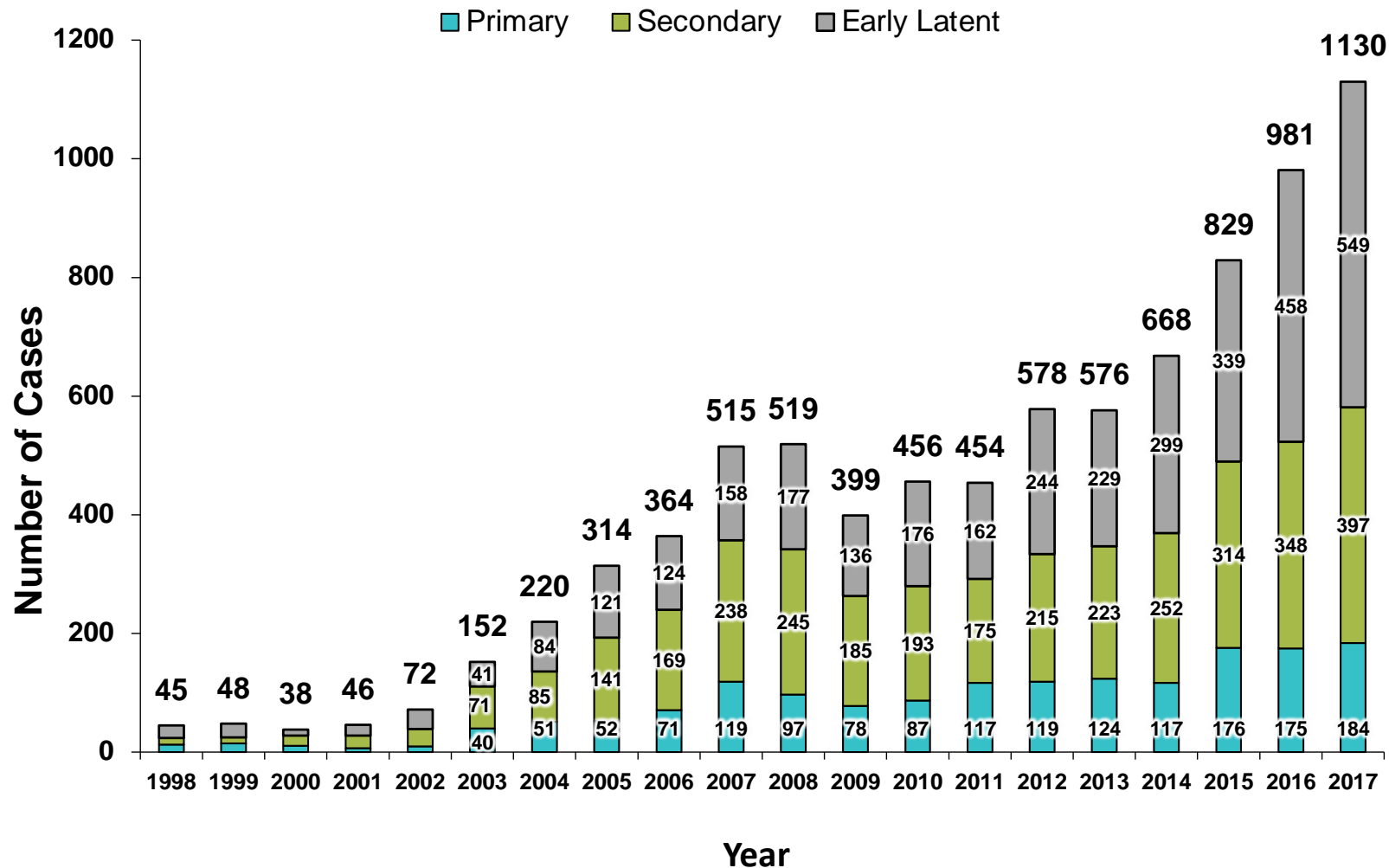
## Early Syphilis in San Diego County

- Cases of early syphilis increased by 15.2% from 981 cases in 2016 to 1,130 cases in 2017, with the largest interval increase (19.9%) in early latent syphilis cases.
- The overall rate of early syphilis increased by 14.4% from 29.8 cases per 100,000 in 2016 to 34.1 cases per 100,000 in 2017.
- The majority of cases are male; 85.5% of cases are men who have sex with men (MSM).
- Rates are highest among males aged 25 to 34 years.
- African-American/black males have the highest rate of infection; the rate of infection in African-American/black males is 1.7 times that of white males.
- An estimated 55% of MSM early syphilis cases are co-infected with HIV.



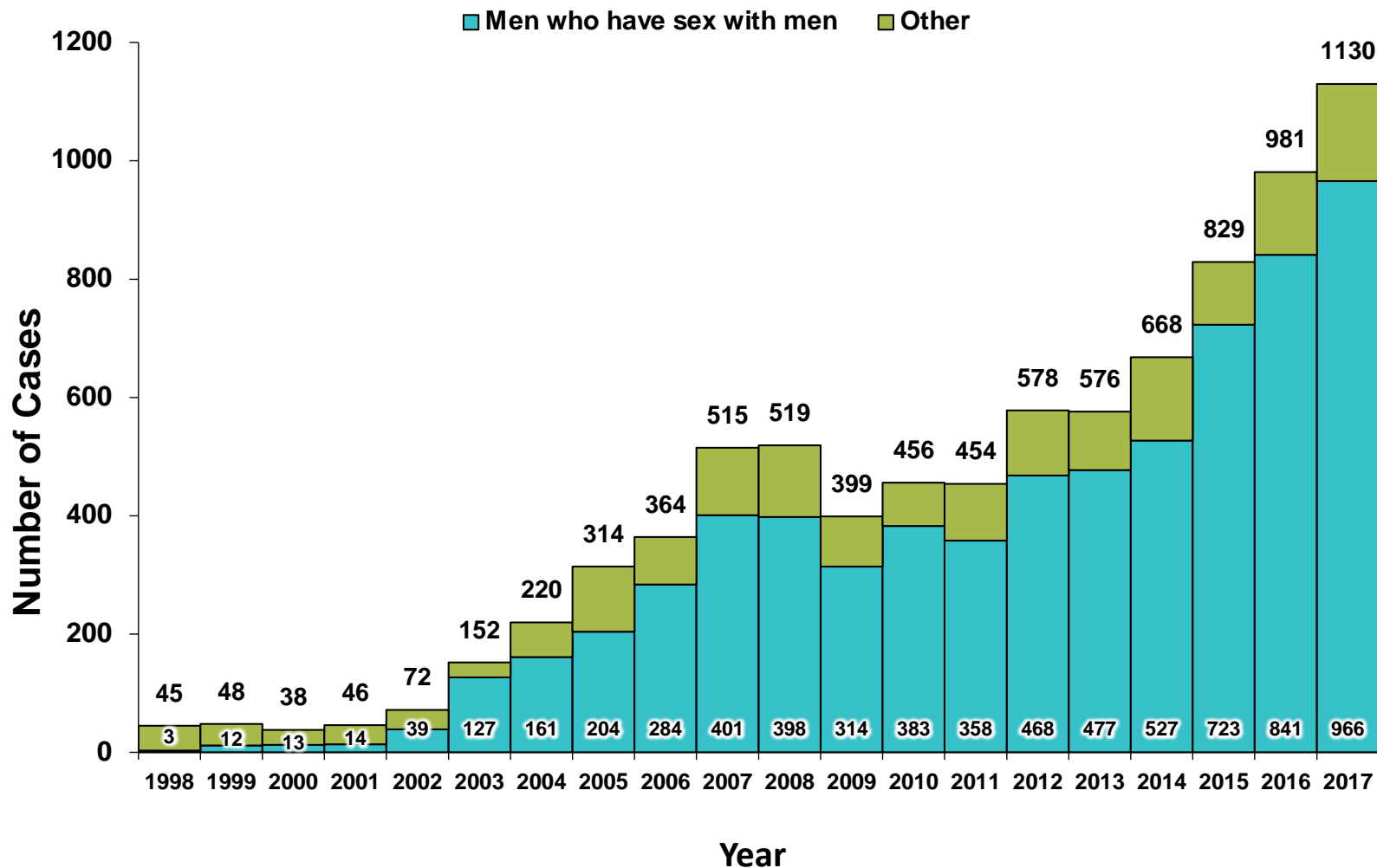
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# Early Syphilis Cases by Year and Stage San Diego County, 1998 - 2017

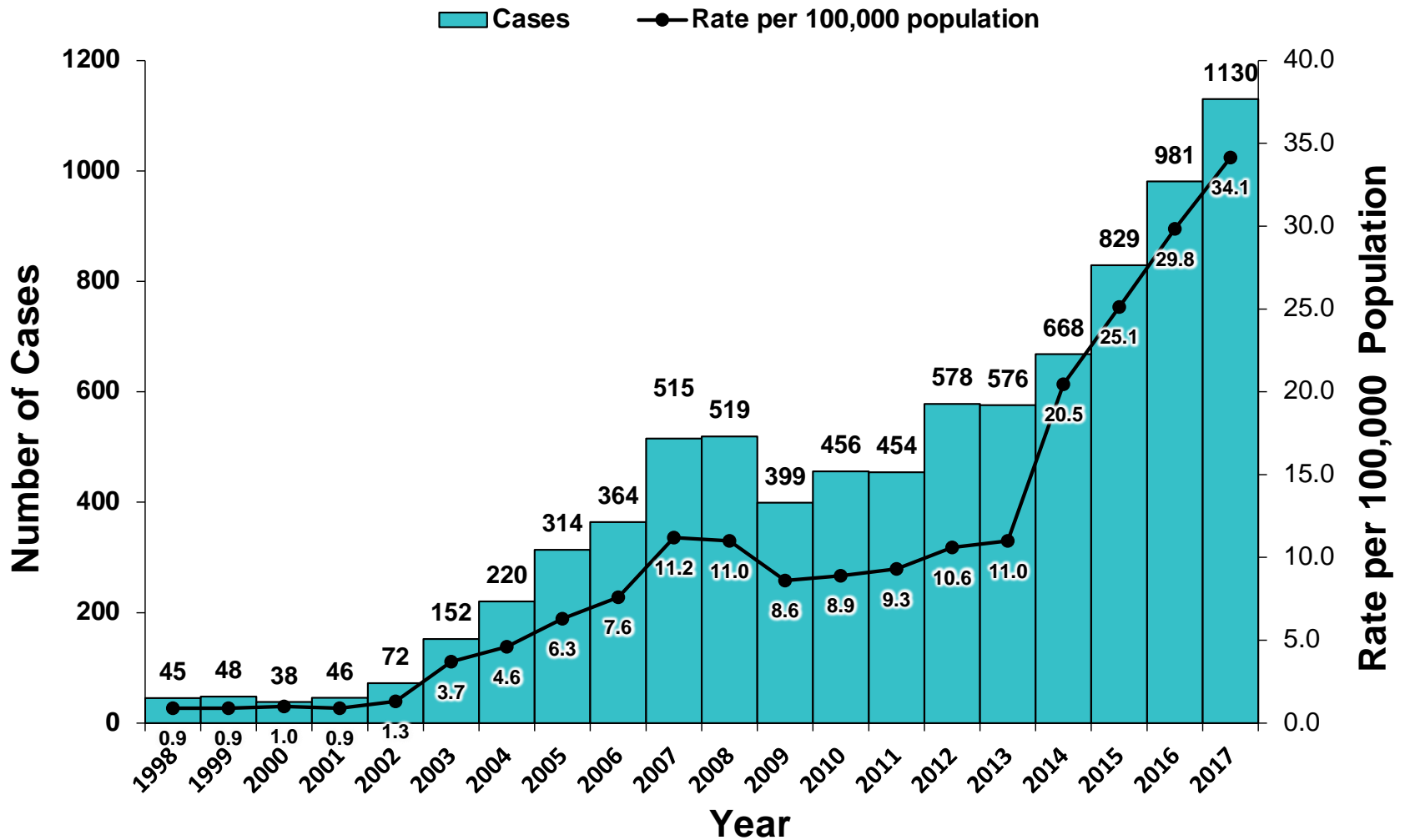




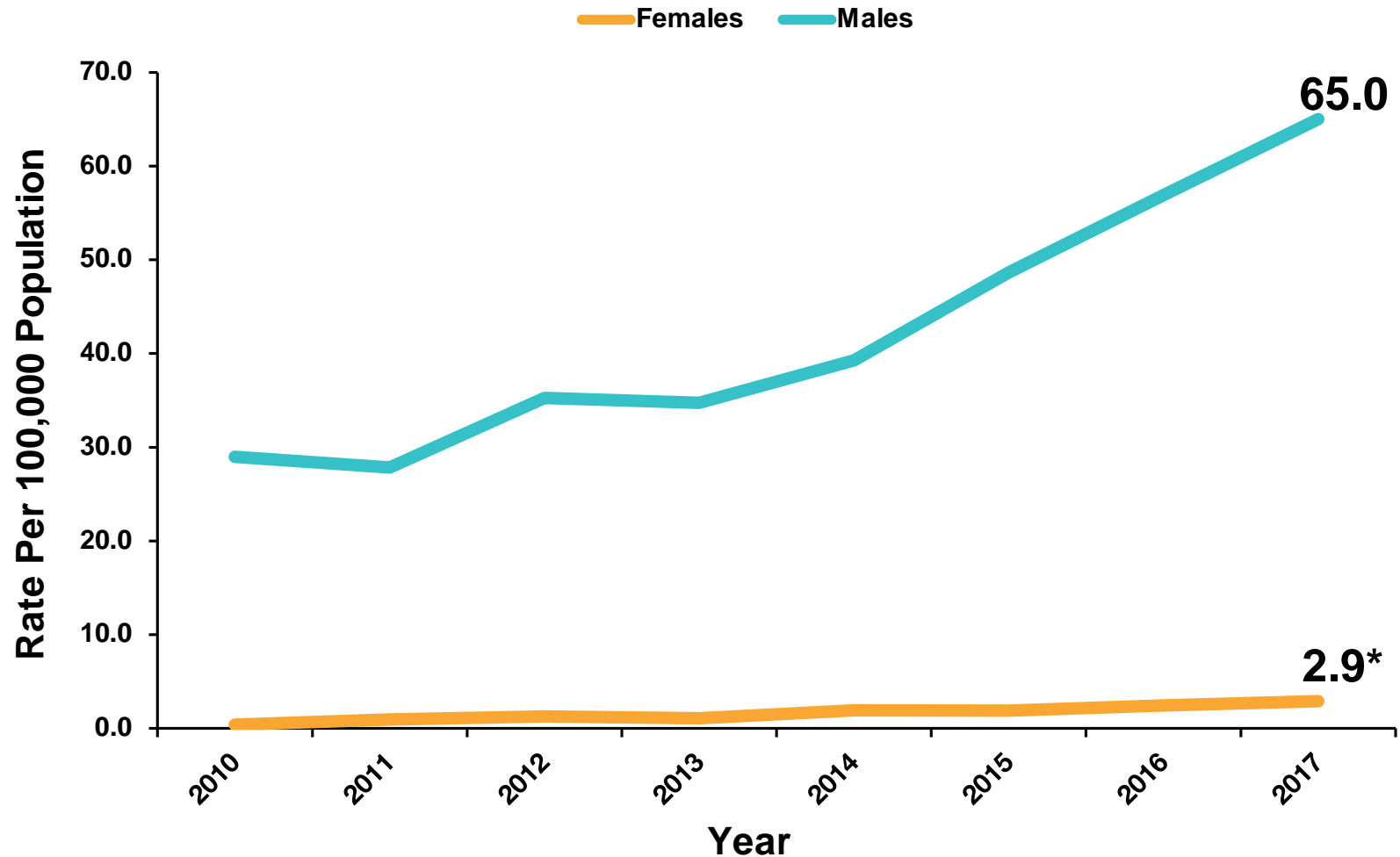
# Early Syphilis Cases by Year San Diego County, 1998 - 2017



# Early Syphilis Cases and Rates by Year San Diego County, 1998-2017

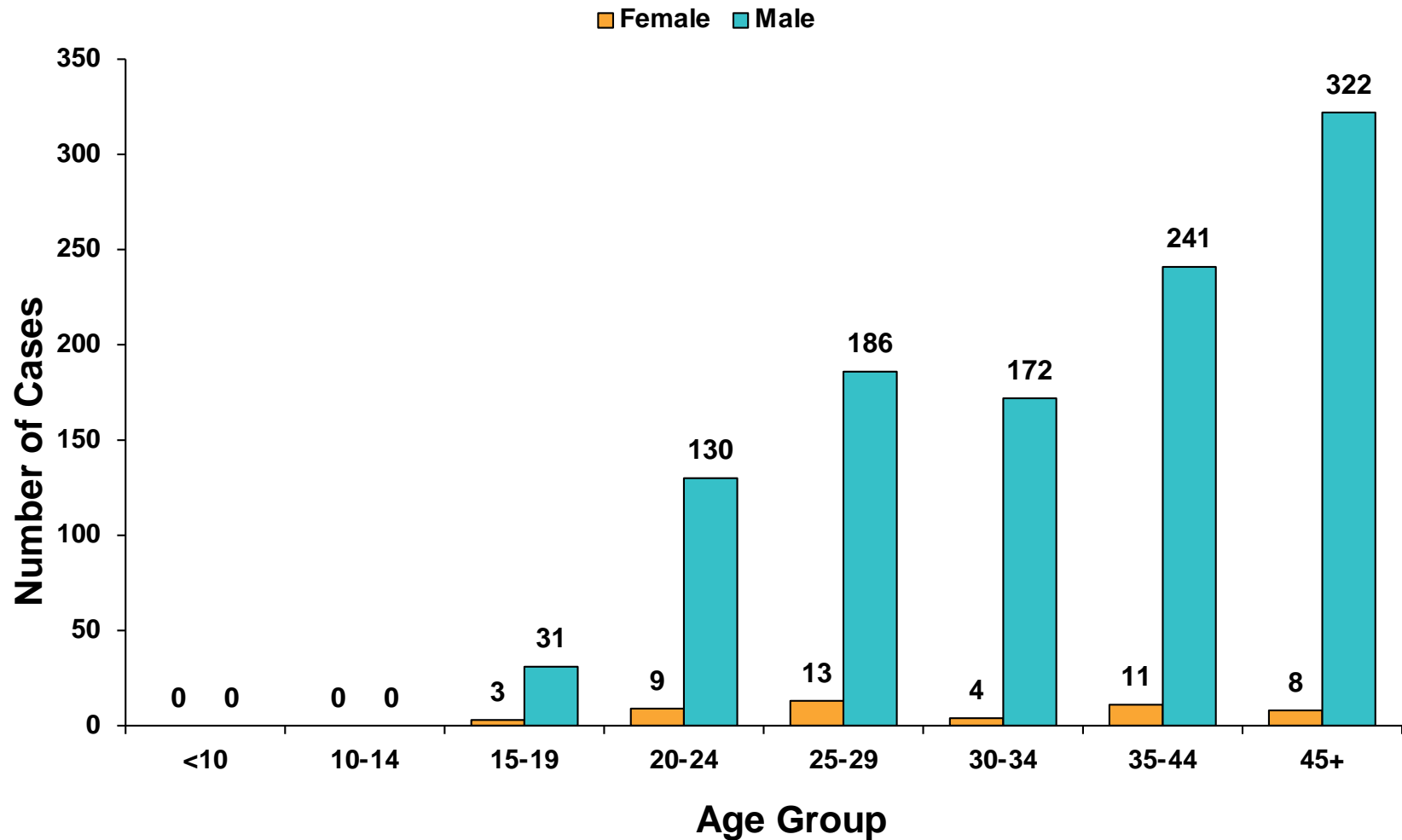


# Early Syphilis Rates by Gender and Year San Diego County, 2010 - 2017

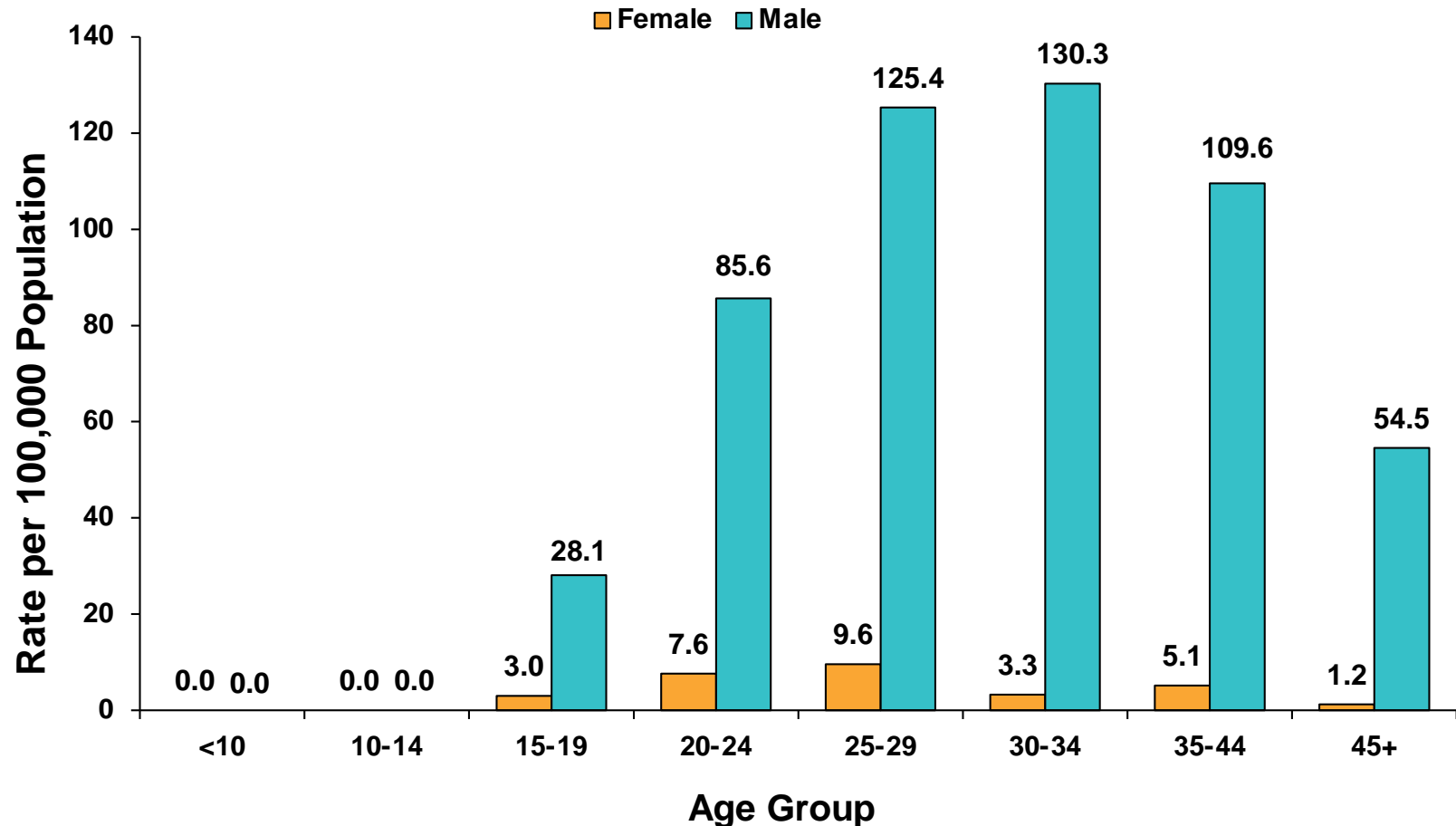


\* Between 2016 and 2017 the female early syphilis rate increased by 21% and the number of cases increased by 20%.

# Early Syphilis Cases by Gender and Age San Diego County, 2017

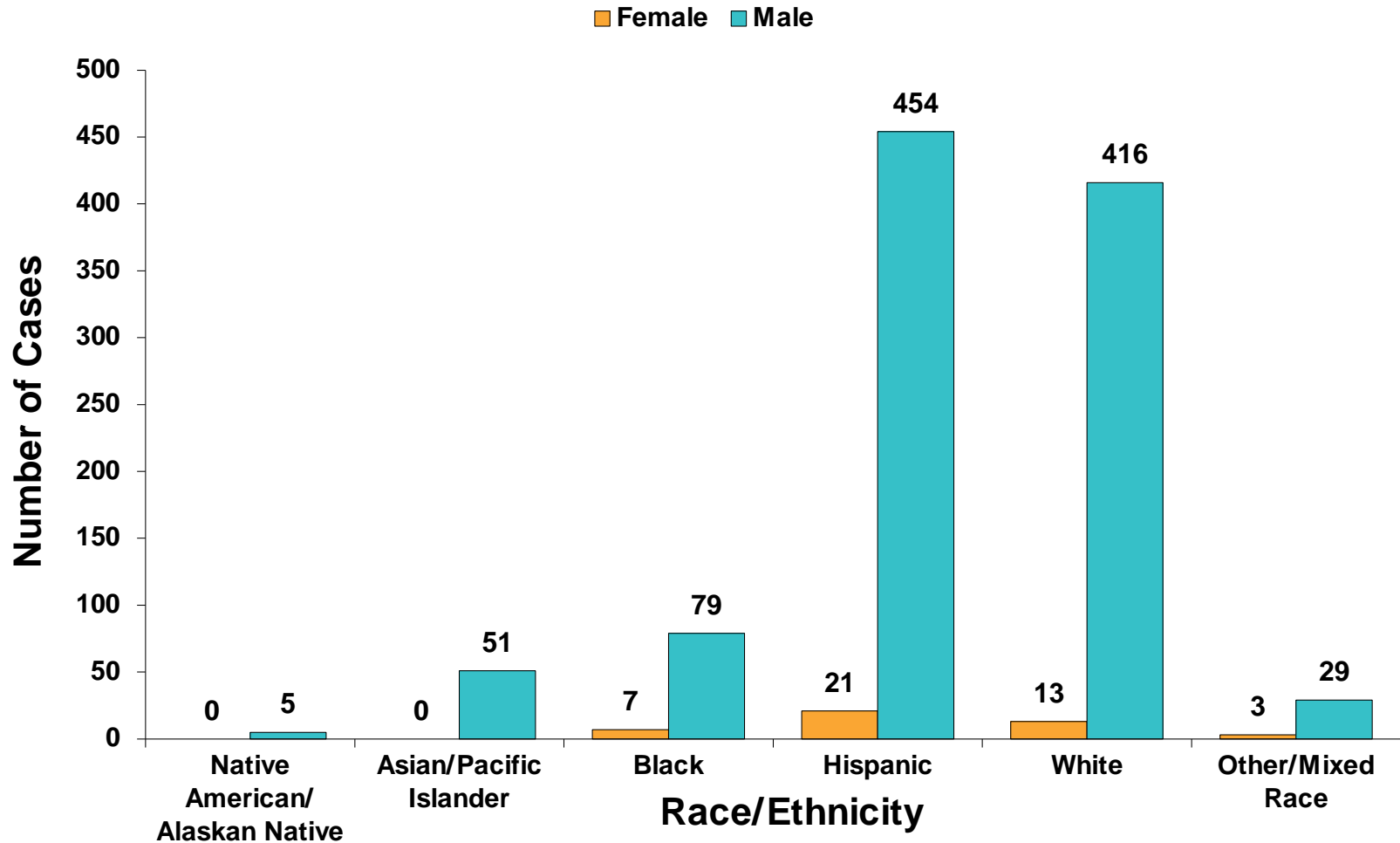


# Early Syphilis Rates by Gender and Age San Diego County, 2017



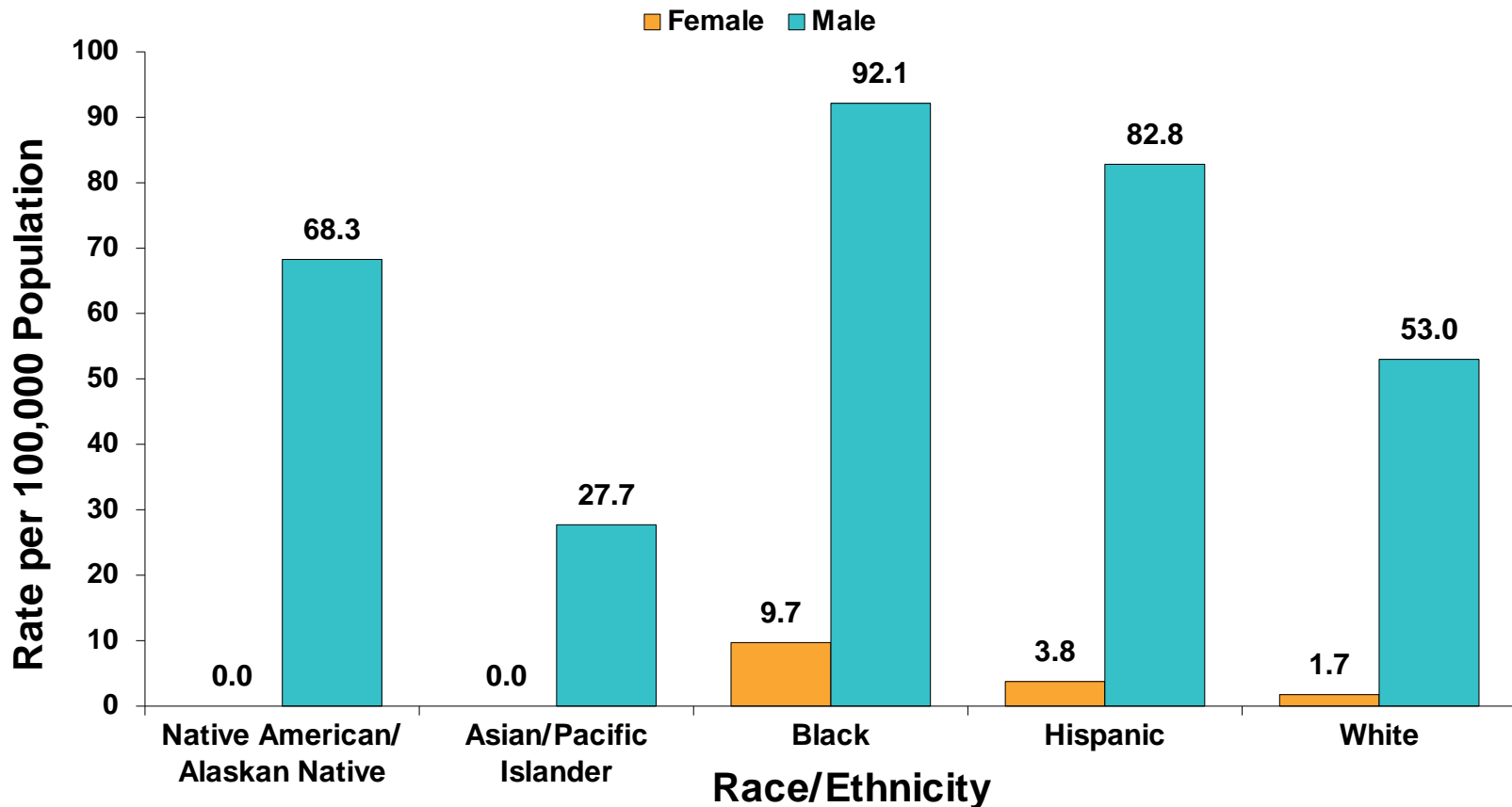
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

# Early Syphilis Cases by Gender and Race/Ethnicity San Diego County, 2017



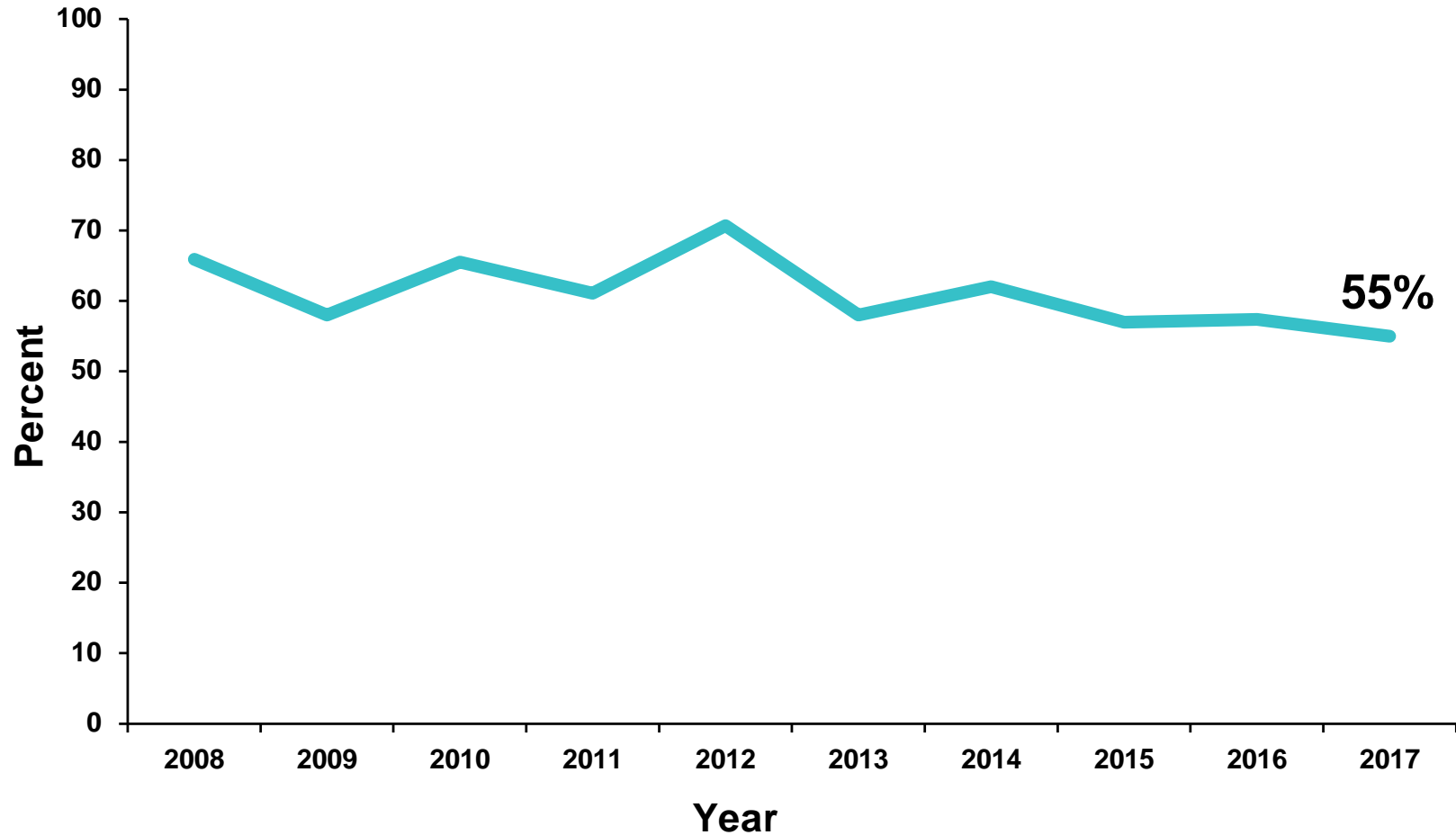
Note: Counts exclude 52 cases missing race/ethnicity information

# Early Syphilis Rates by Gender and Race/Ethnicity San Diego County, 2017



Note: Rates exclude 52 cases missing race/ethnicity information and 32 cases with other/mixed race designations.  
Rates calculated using preliminary 2017 population estimates provided by the Community Health Statistics Unit.

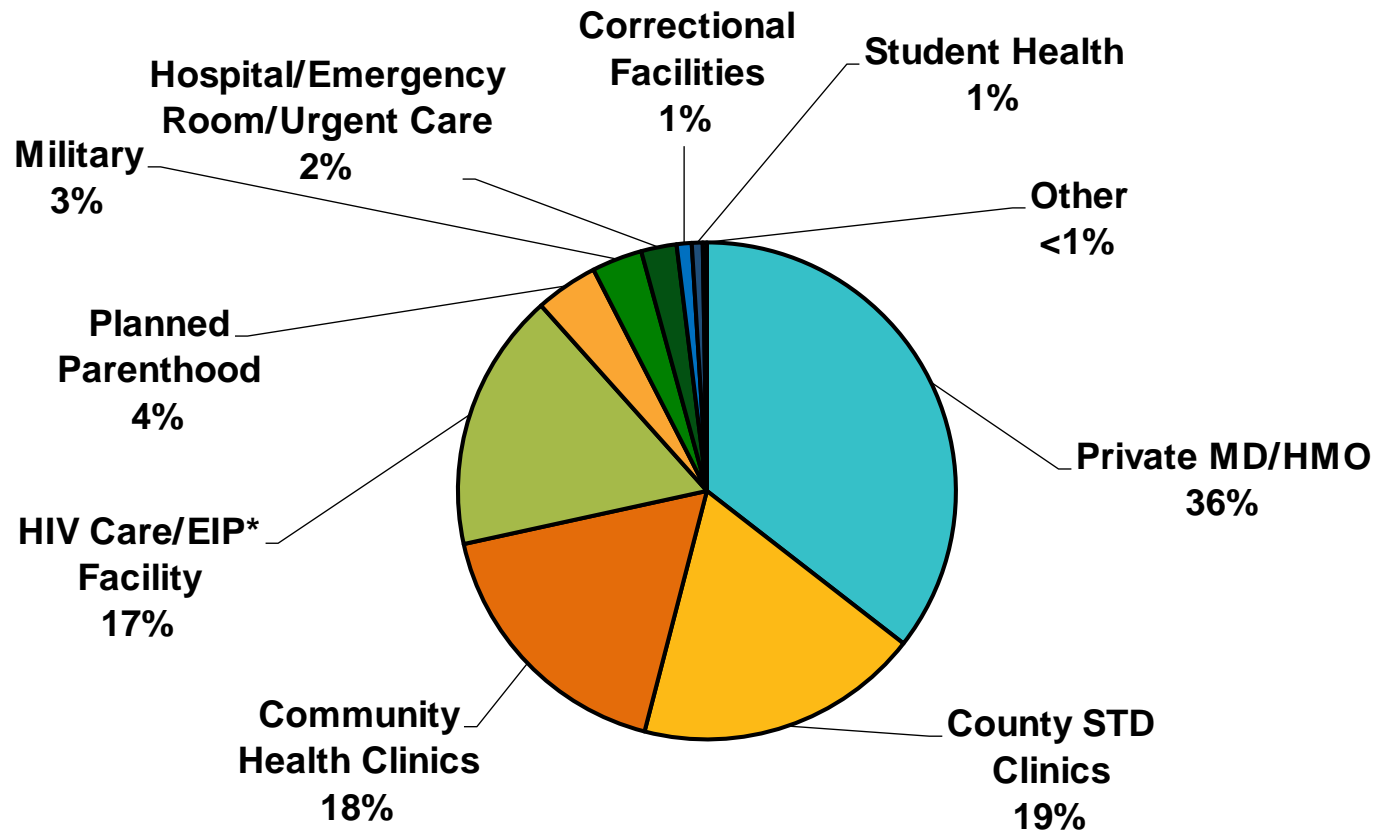
# Percent of MSM\* Early Syphilis Cases Co-Infected with HIV by Year San Diego County, 2008 - 2017



\*MSM: Men Who Have Sex With Men.



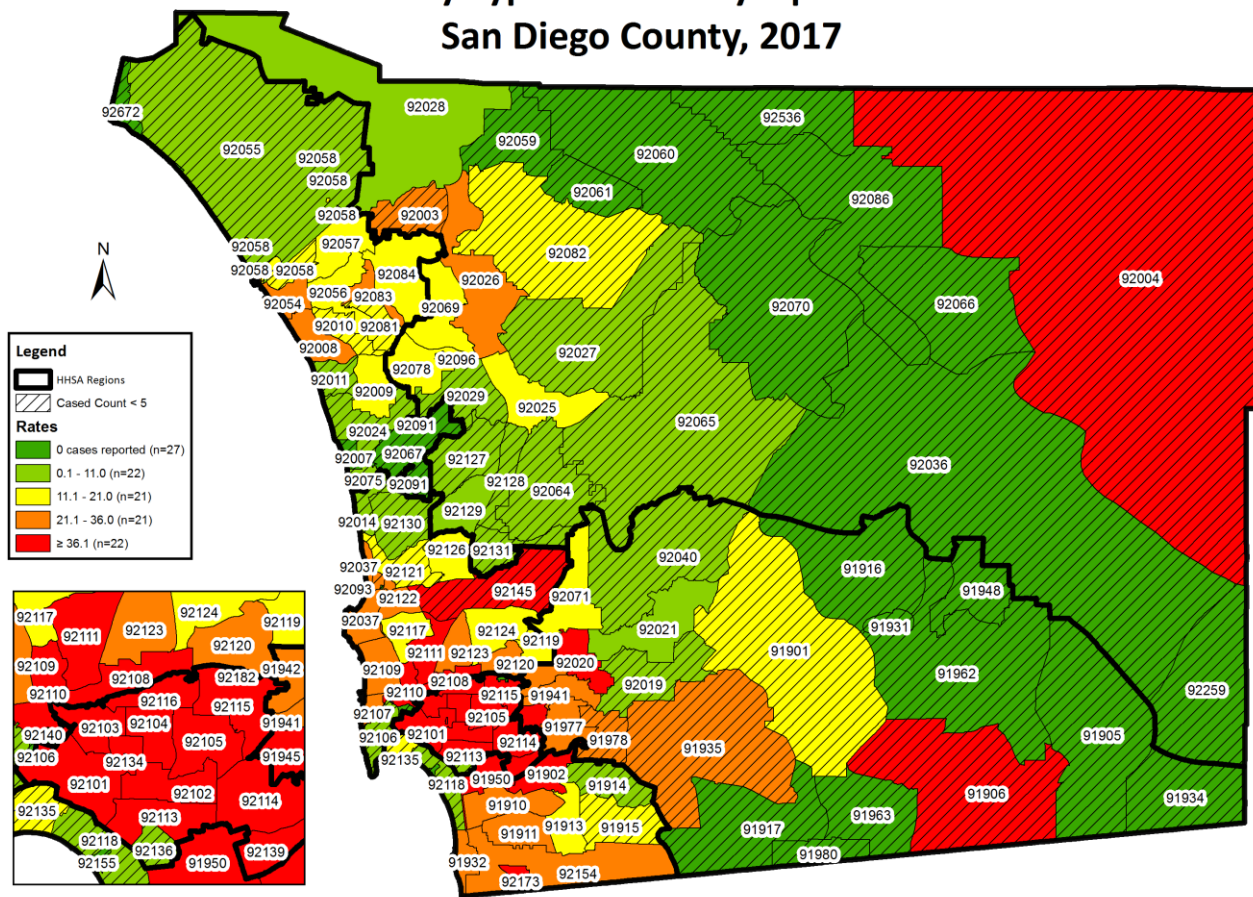
# Early Syphilis Cases by Reporting Facility Type San Diego County, 2017



\*EIP: Early Intervention Program



## Early Syphilis Rates by Zip Code San Diego County, 2017



Source: County of San Diego, Health and Human Services Agency, HSHB (HIV, STD, Hepatitis Branch), CalREDIE Database

Map Date: July 5, 2018

Contact: Lawrence Wang

# Female & Congenital Syphilis



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# Key Points

## Female & Congenital Syphilis in San Diego County

- Cases and rates of syphilis of any stage and early (i.e., primary, secondary, and early latent) syphilis in females aged 15-49 years (i.e., women of childbearing potential) have been increasing overall from 2013-2017.
- The case count increases between 2014-2015 and between 2016-2017 were statistically significant at  $p < 0.05$  for females aged 15-49 years who had any stage of syphilis.
- The case count increase between 2013-2014 was statistically significant at  $p < 0.05$  for females aged 15-49 years with early syphilis.
- The rate increases between 2014-2015 and 2016-2017 in women who had syphilis while pregnant were statistically significant at  $p < 0.05$ . There were no statistically significant increases in rates of early syphilis in this age group.
- Congenital syphilis rates have generally increased from 2013 through 2017, though none of the increases were statistically significant.
- There were 5 stillbirths reported in this time period: 1 in 2013, 2 in 2014, 1 in 2015, and 1 in 2017.



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# Congenital Syphilis Surveillance Definitions

- Congenital Syphilis (C.S.): any infant whose mother had untreated or inadequately treated\* syphilis at the time of delivery, regardless of findings in the infant or child
- Confirmed C.S.: Infant or child in whom *Treponema pallidum* is identified by darkfield microscopy, direct fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material
- Probable C.S.: Meets case definition of C.S. This may also include an infant or child with a reactive treponemal test for syphilis and evidence of C.S. on physical examination, cerebrospinal fluid analysis, and/or long bone X-ray.
- Syphilitic Stillbirth: Fetal death in which mother had untreated or inadequately treated\* syphilis at the time of delivery of either a fetus after a 20-week gestation or a fetus weighing >500 grams.

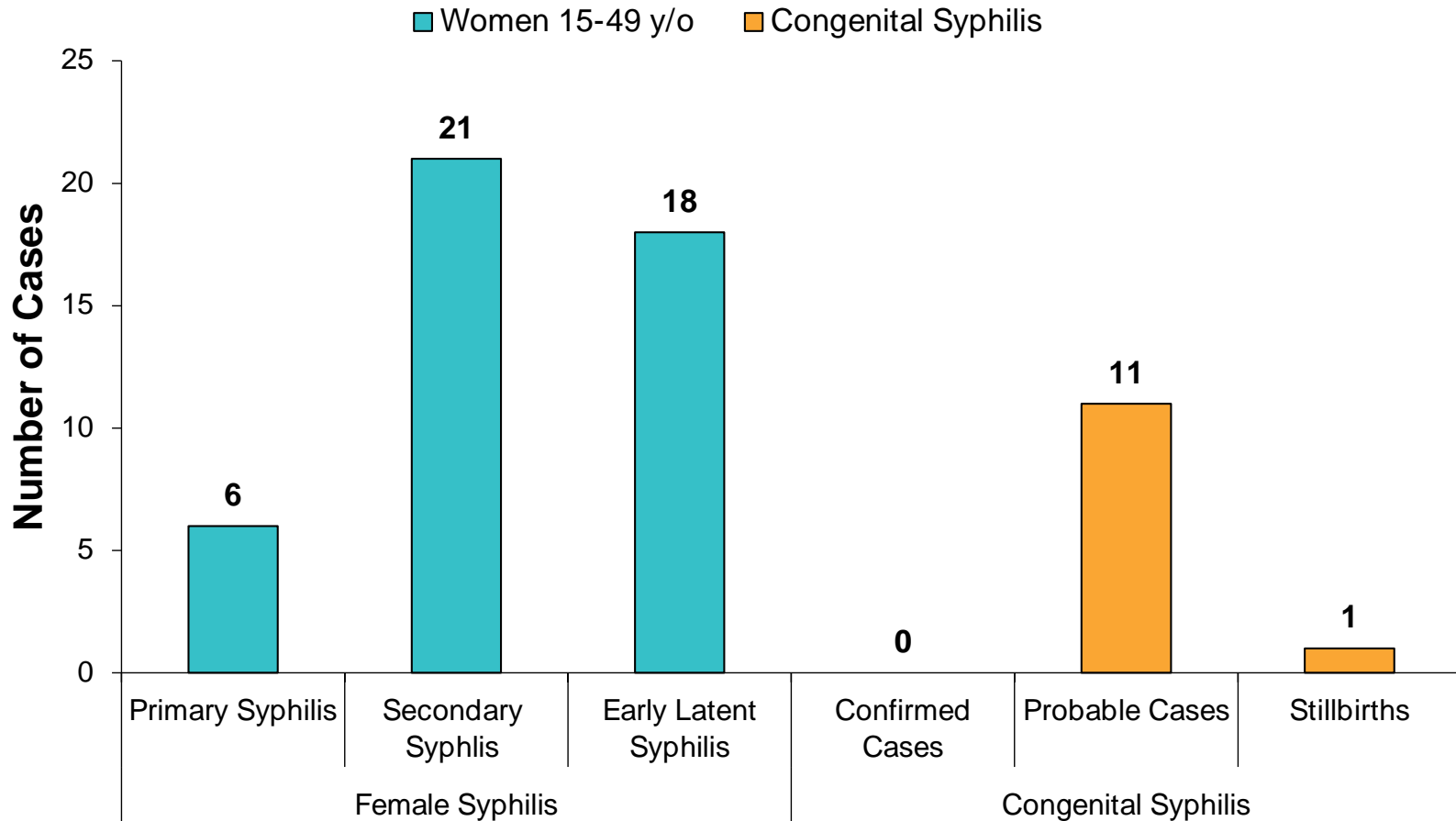
\*Inadequate maternal treatment refers to incomplete treatment, treatment that is not in accordance with national guidelines, and/or treatment that was not initiated at least 30 days prior to delivery.



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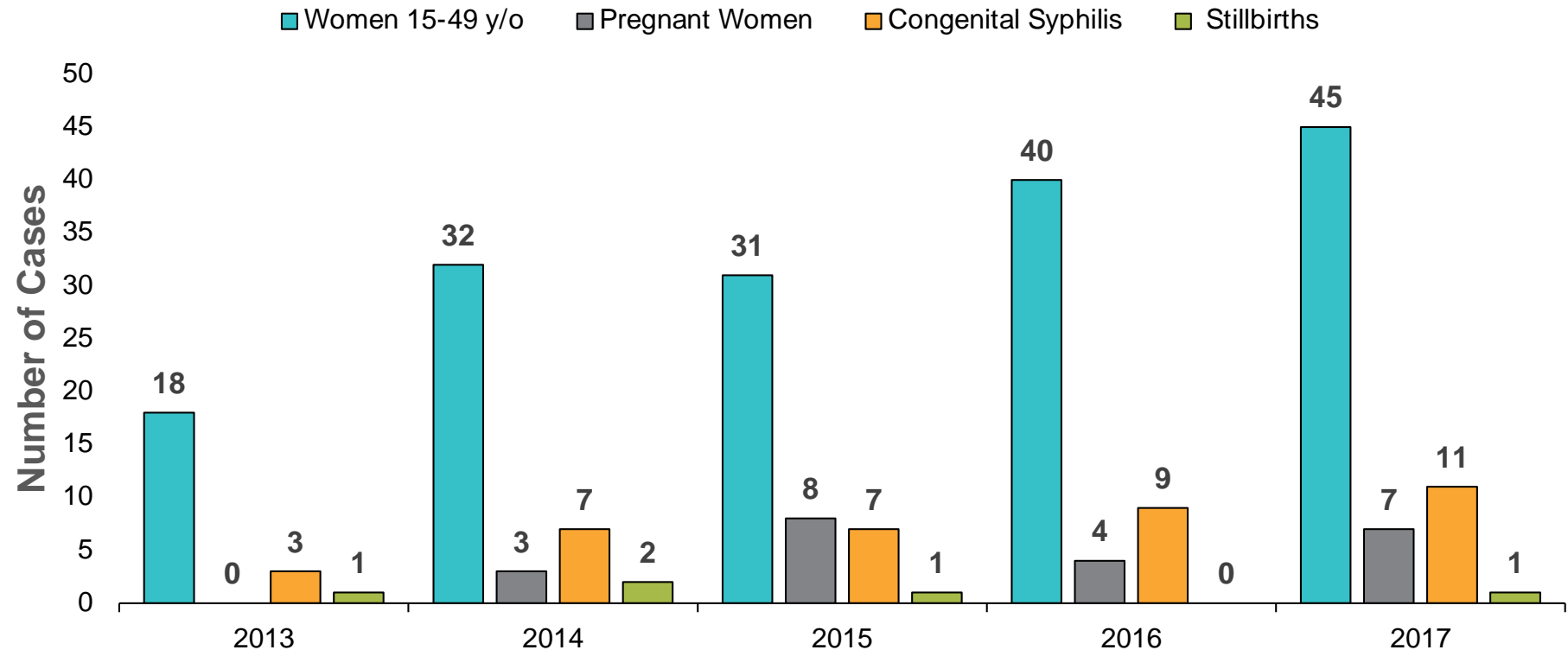
# Cases of Syphilis in Women of Childbearing Age and Congenital Syphilis

## San Diego County, 2017



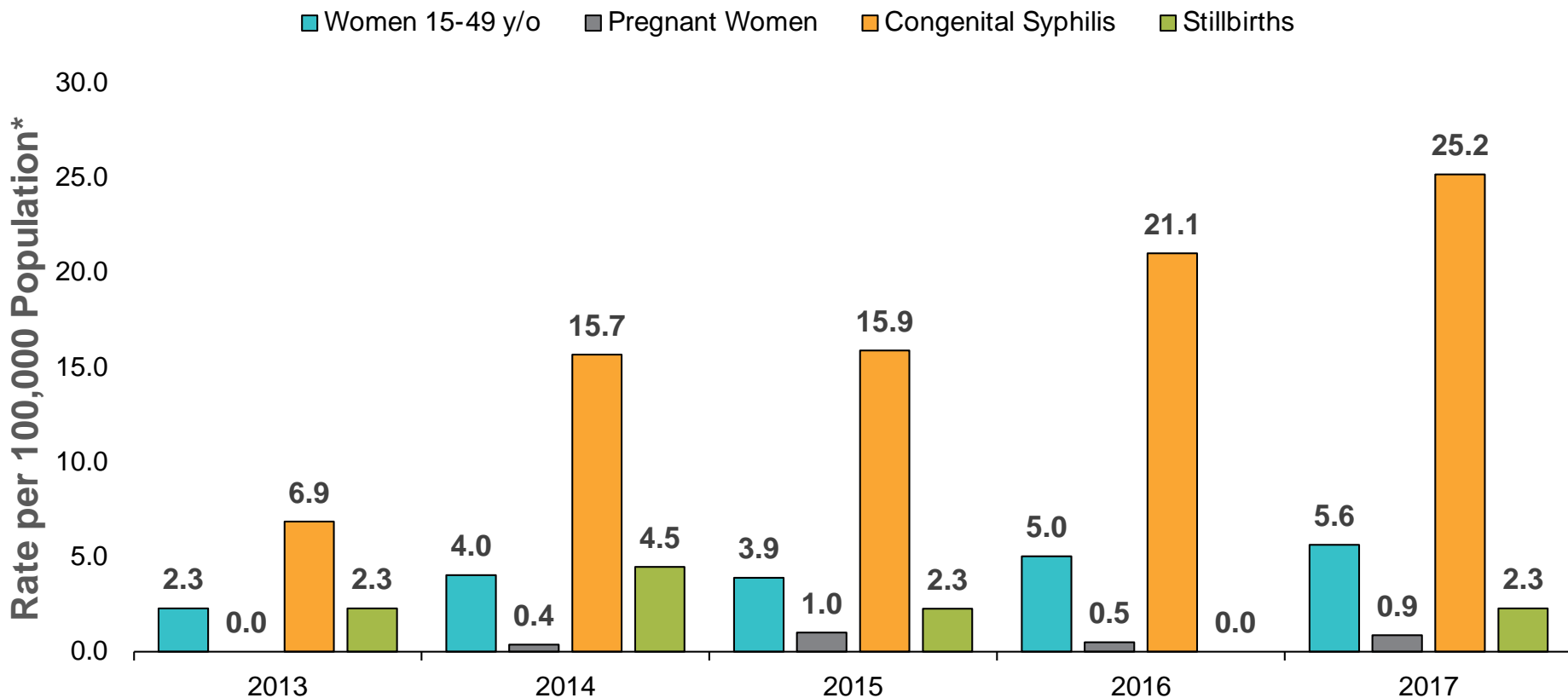
Note: Syphilitic stillbirth is included in the probable case count.

# Cases – Early Syphilis in Women of Childbearing Age (15-49 y/o) & Pregnant Women, Congenital Syphilis, & Stillbirths San Diego County, 2013-2017



Note: Early syphilis includes primary, secondary, and early latent stages of syphilis.  
Syphilitic stillbirths are included in the congenital syphilis case counts.

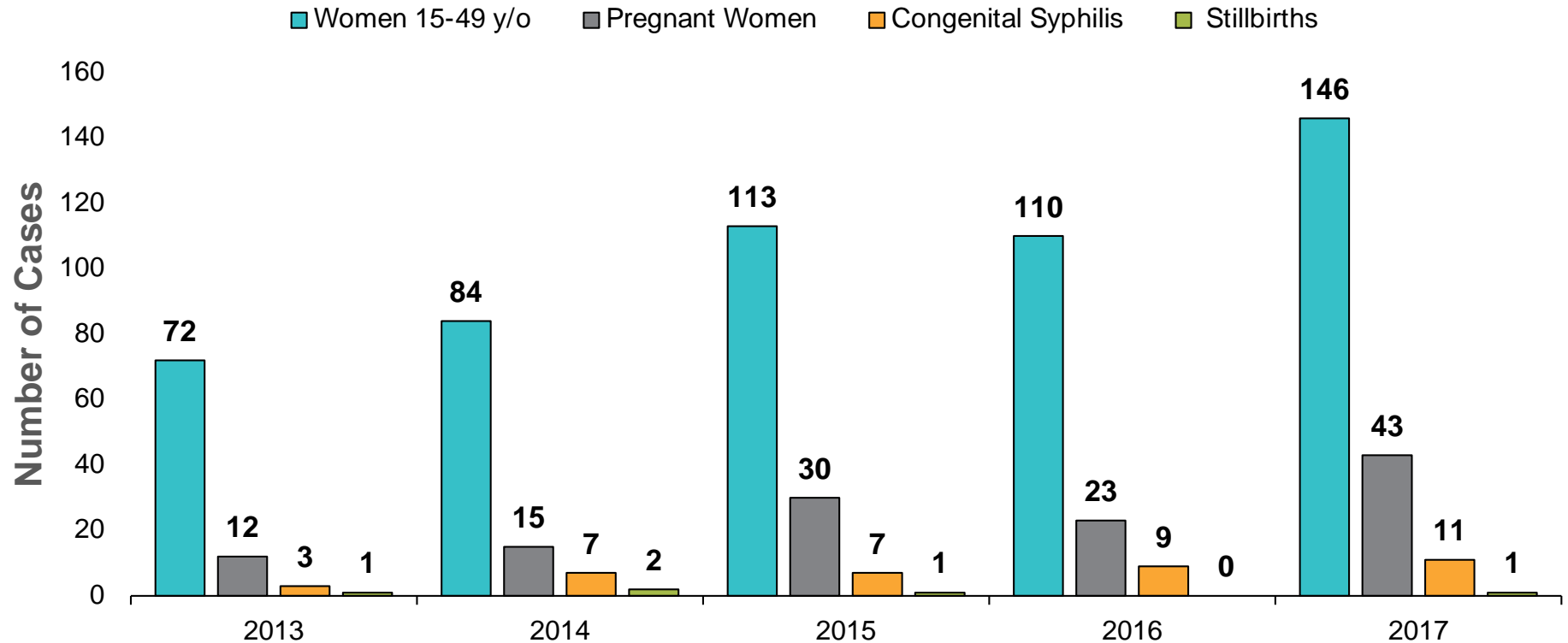
# Rates – Early Syphilis in Women of Childbearing Age (15-49 y/o) & Pregnant Women, Congenital Syphilis, & Stillbirths San Diego County, 2013-2017



Note: Early syphilis includes primary, secondary, and early latent stages of syphilis.  
\*Rates for women 15-49 y/o and pregnant women were defined based on population estimates of women 15-49 years of age.  
Rates for congenital syphilis and stillbirths were defined based on the number of births.



# Cases – Syphilis (All Stages) in Women of Childbearing Age (15-49 y/o) & Pregnant Women, Congenital Syphilis, & Stillbirths San Diego County, 2013-2017



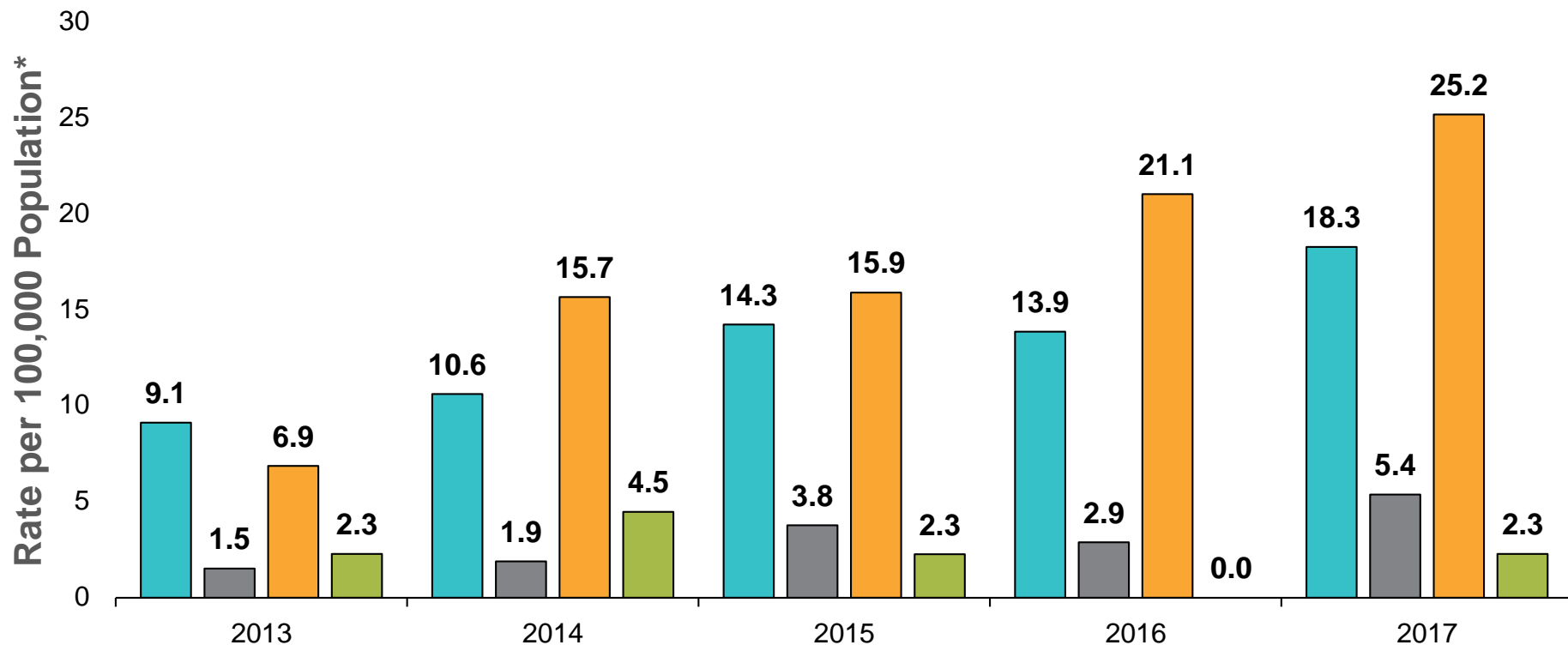
Note: Syphilis includes all stages of syphilis.  
Syphilitic stillbirths are included in the congenital syphilis case counts.

# Rates – Syphilis (All Stages) in Women of Childbearing Age (15-49 y/o) & Pregnant Women, Congenital Syphilis, & Stillbirths San Diego County, 2013-2017



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■ Women 15-49 y/o ■ Pregnant Women ■ Congenital Syphilis ■ Stillbirths



Note: Syphilis includes all stages of syphilis.

\*Rates for women 15-49 y/o and pregnant women were defined based on population estimates of women 15-49 years of age.  
Rates for congenital syphilis and stillbirths were defined based on the number of births.

# Contact Information



For questions or requests for data that are not included in these slides, please send an e-mail to [std@sdcounty.ca.gov](mailto:std@sdcounty.ca.gov), or visit [www.STDSanDiego.org](http://www.STDSanDiego.org) (click on “Reports and Statistics”).